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The Journal of the Fire Protection Profession

SEPTEMBER 18, 1929

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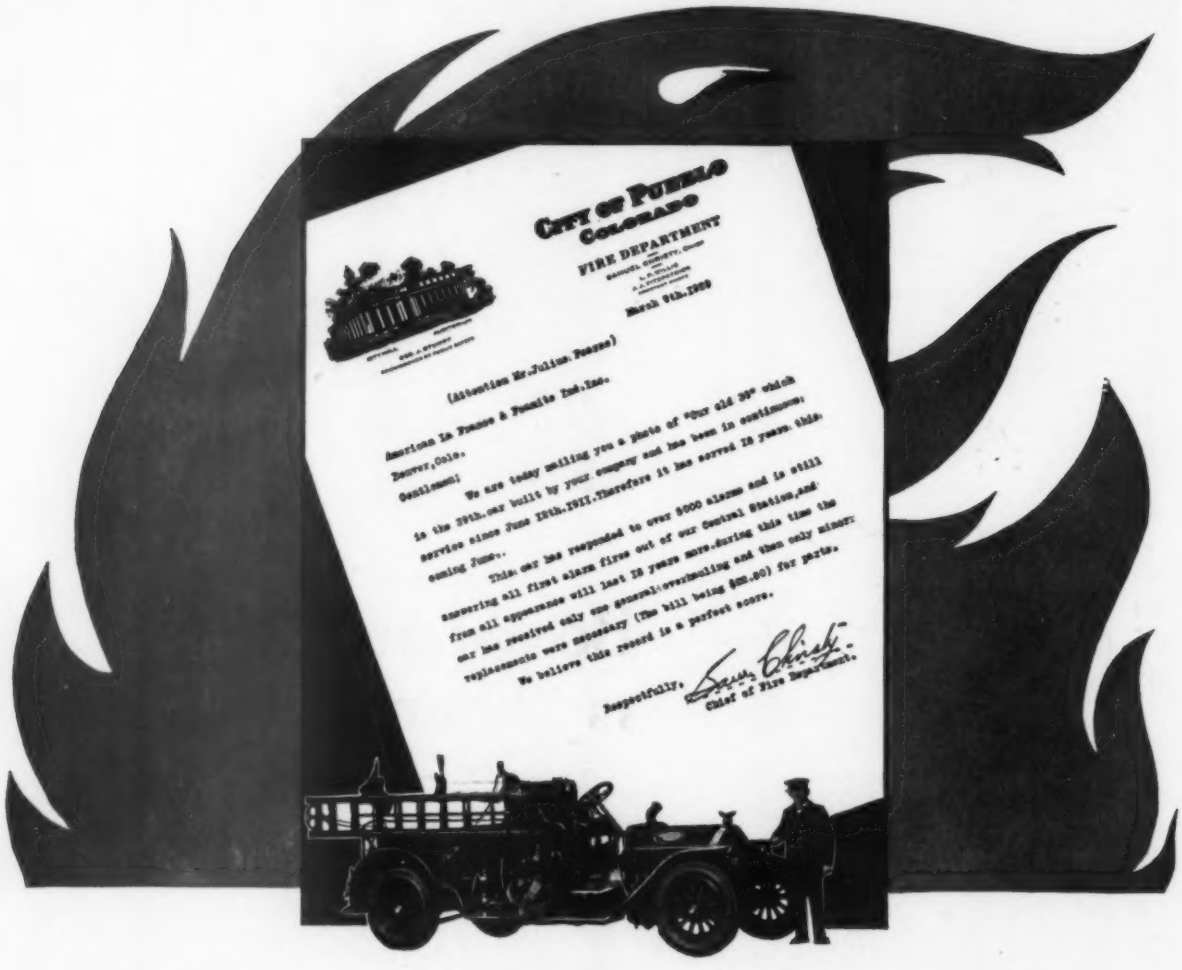
CITY OF PUEBLO
COLORADO
FIRE DEPARTMENT
March 9th.1929
(Attention Mr.Julius Pease)
American La Pease & Foamite Ind.Inc.
Denver,Colo.
Gentlemen:
We are today mailing you a photo of "Our old 39" which
is the 39th.one built by your company and has been in continuous
service since June 12th.1911.Therefore it has served 18 years this
coming June.
This one has responded to over 5000 alarms and is still
answering all first alarm fires out of our Central Station,and
from all appearance will last 18 years more.During this time the
one has received only one general overhauling and then only minor
replacements were necessary (The bill being $22.80) for parts.
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Respectfully,
Chief of Fire Department.

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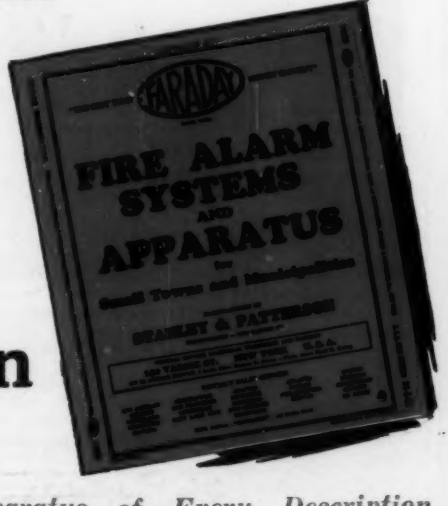

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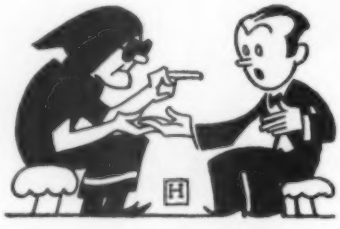

What Does the Future Hold?

IN these days of Zeppelin tours around the world, airplanes whizzing through the air at bullet speed, long distance communication by radio, talking motion pictures,—and what not, it doesn't take the fantastic dream of a Jules Verne to carry us into the realm of marvels still to come.

¶ Most of us are beginning to realize, with all the almost uncanny developments of recent years, that very nearly anything can be accomplished. It's just a matter of vision, brain-work and time.

¶ Fifty years ago none other than the head of the U. S. Patent Office recommended in the name of economy that his department be discontinued because he felt that there was nothing more to be invented. He would probably have laughed heartily at the thought of an automobile or airplane.

¶ At the rate we're now going, with astounding things materializing almost over-night, the Lord only knows what the next fifty years will bring. Think of what can and probably will happen in the science of fire-fighting and fire prevention. It may not be long before we'll have occasion to look back with a smile at our present-day methods, as efficient as they may seem now.

¶ Just as it has helped the fire fighting profession keep abreast of the times during the past fifty-two years, FIRE ENGINEERING will do its part in the future and the job is becoming more interesting all the time.

The Publishers

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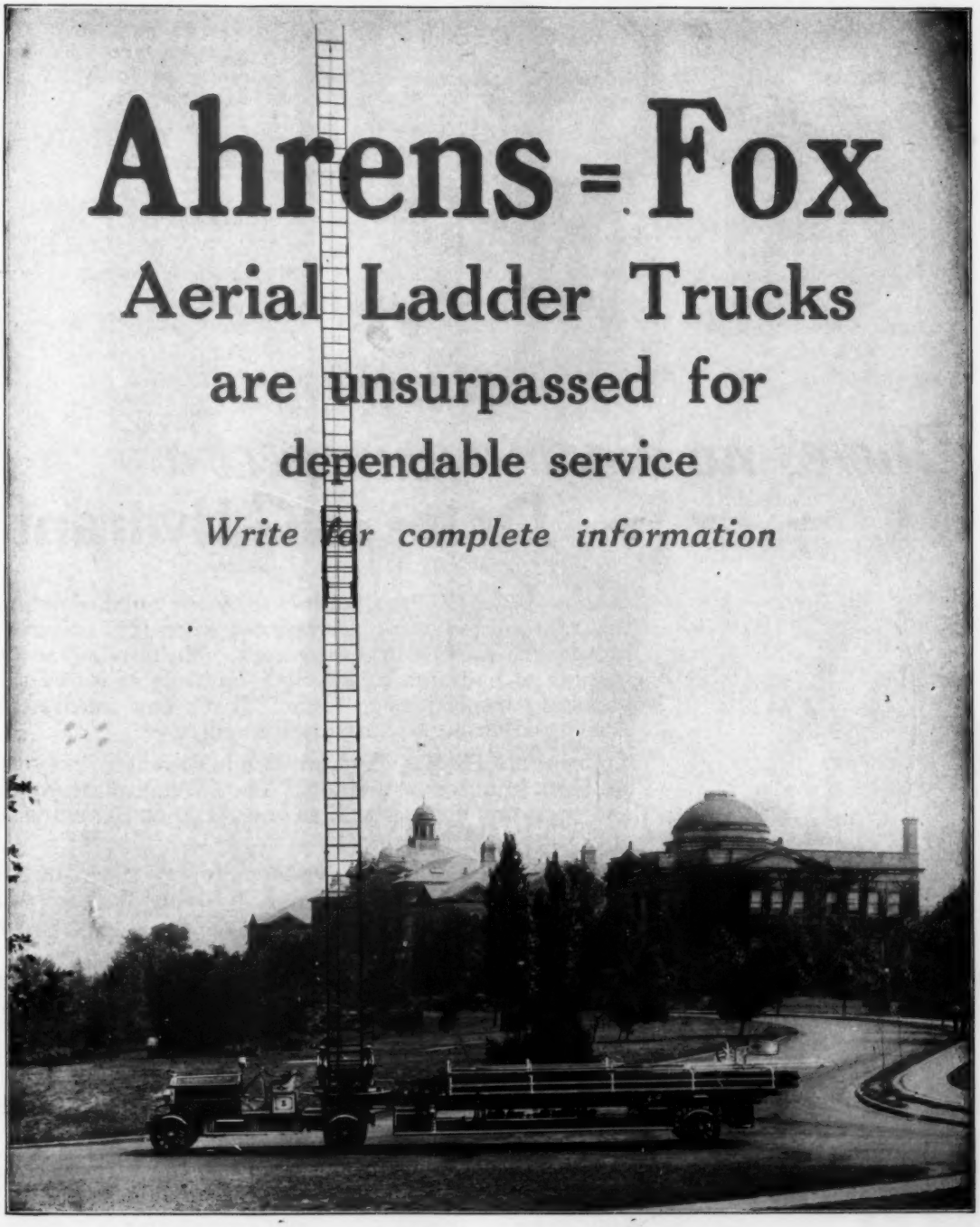

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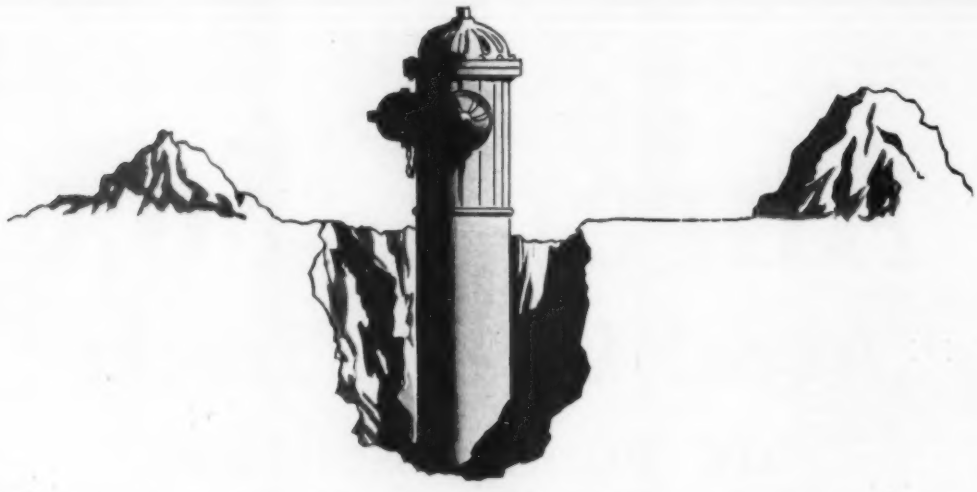
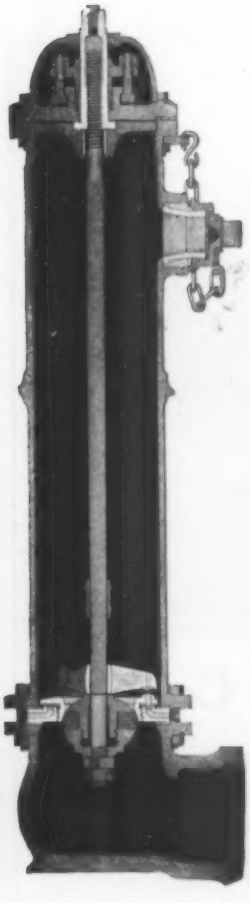


There's no digging to inspect a DARLING Hydrant



One shovelful of dirt. Multiply it by the number of shovelfuls that are removed and returned when it is necessary to replace the valve seat in a hydrant. Multiply again by the number of hydrants in the city—multiply again by all the necessary inspections to come. That's how much expense Darling Hydrant standardization will save.

To inspect a Darling Hydrant you have only to remove the six bolts from top of hydrant. The packing plate, follower, and operating nut come off as one part by unscrewing operating nut from valve rod.

Then by screwing the valve stem to the left with a seat wrench the entire inner workings, including MAIN VALVE SEAT, SEAT GASKET and DRIP VALVE SEATS may be lifted out for inspection.

Other important well-known features are the extra large barrel, the compression type of valve, the automatic barrel draining valves, the clear unobstructed base. And the one piece extension feature for extension in case of street elevation.

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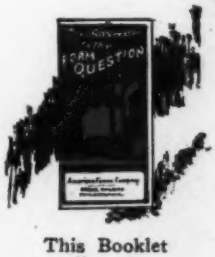

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CARRYING POWER and not *Horsepower* is the true measure of a siren's efficiency—this was strikingly demonstrated in tests recently conducted by the officials of Oconomowoc, Wisconsin.

A 5 *H.P.* Gamewell Codewell was set-up alongside of a 10 *H.P.* coding siren of another manufacturer which was explained, represented their latest development. The tests which followed were witnessed by the Mayor, Fire Chief, and three members of the Oconomowoc Fire Committee; also three representatives of the other manufacturer and two Gamewell representatives.

The results of the tests showed:

1. At a distance of 1½ miles from the location of the Codewell and other siren, the Codewell was clearly more powerful and distinct in every case.
2. The code produced by the Codewell could be readily distinguished close at hand or at a distance.
3. The code produced by the other siren could not be readily distinguished close at hand and was weak at a distance.
4. According to the opinion of the official in charge of the installation of both, the Codewell was less expensive to install.
5. It was also the opinion of the same official that the Codewell was less complicated in its construction than the other siren.

The combined opinion of the Oconomowoc officials was that the 5 *H.P.* Codewell had demonstrated in a fair test, its superiority over the 10 *H.P.* siren. Further tests conducted with the Codewell, and two additional sirens brought in by the same manufacturer, served to further convince the officials of the superiority of the Gamewell Codewell, which they purchased.

If you are in the market for a coding siren, we shall be glad to give you further details of how the Codewell has won other tests.

THE GAMEWELL COMPANY

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NEWTON UPPER FALLS, MASS.

FIRE ENGINEERING

(A Consolidation of FIRE AND WATER ENGINEERING and THE FIRE ENGINEER)

The Journal of the Fire Protection Profession

VOLUME LXXXII SEPTEMER 18, 1929 NUMBER 19

What Are Our Obligations to Exhibitors?

Manufacturers Should Not Be Expected to Bear the Total Expense of Conventions Nor to Entertain Department Officers Lavishly

By ALBERT HERRING, Chief of Fire Department, Murphysboro, Ill.

MANUFACTURERS have very little obligation to the firemen, and this may be a surprise to many.

The average buyer, and we are in that class, is generally on the defensive when someone tries to sell him something. Through force of habit, a wall of resistance is built up, but that is the wrong stand to take.

Chief Albert Herring

Let us analyze the relationship which exists between the manufacturer of fire apparatus and supplies, and the fire department. The manufacturer has something to sell. We depend on him to furnish us the necessary equipment to enable us to efficiently serve our community. The manufacturer establishes contact with firemen and has a much larger share in meetings than most persons realize. Upon his knowledge and design, honor and construction, rests the success of a fire department in time of action.

He knows that if the article to be sold is not of benefit to the fire department, he will be wasting money in attempting to market the device. While, therefore, it is to his advantage to bring commendable merchandise to the attention of fire chiefs and firemen, the fire department is really favored by being shown some appliance that will serve a definite need. We must not forget that our needs are not all the same. We are not in the position of the average buyer who sometimes makes purchases aside from the utility value.

The manufacturer is under a great expense to prepare his merchandise for exhibit purposes at fire department conventions. Being a business man, he assumes that when he goes to this expense, he has something to show fire officials that is not only needed, but that will be of assistance to the service.

What should our attitude be towards such manufacturers who are in many cases as much enthused in the development and progress of the fire department as is the average fire-fighter? Should we regard them as merely individuals who are trying to make sales and from whom the chief can expect the best service at the cheapest price, plus as many favors as one can coax from them? Should we take the attitude that manufacturers are trying to obtain favors from us and that we are at liberty to try to make them spend as much money as possible? Should we "kid" ourselves into believing that we should get everything possible out of manufacturers without any cost to ourselves? Are we right in assuming the attitude that the manufacturers should bear the expense of the various conventions?

I believe that if we were to carefully examine ourselves in the light of past actions, and if we are at all fair, admit that we have not only done injustice to ourselves and to the manufacturer, but that we have really lost some of our dignity, and have justly caused the other party to complain.

Men of experience who are associated with the va-

"ARE firemen responsible for all improvements made during the past thirty or forty years? Can we say that we have built up our fire department to its present remarkable and excellent condition? No, we can not. We owe this entirely to the manufacturers who have, at their own expense, experimented, designed and built about all of the equipment that we now use."

rious conventions of the International Association of Fire Chiefs, recognize these facts, and have not only welcomed the manufacturer of fire department merchandise but have tried to make this group realize that the fire departments appreciate efforts made to improve the fire service. The cost of floor space at the national conventions has been made very small. No attempt is made to shoulder convention expenses upon the visiting exhibitor. The manufacturers are welcomed and extended the glad hand of fellowship. He is furnished with every possible facility to best display his merchandise. Arrangements are also made to facilitate any public demonstration of apparatus that the manufacturer may desire to make.

No chief can, in this age, keep abreast of the many advancements, unless he is advised of the changes that are taking place almost daily. It is, therefore, important that we have the manufacturer with us to call our attention to these improvements.

How different is the stand taken by those in charge of conventions of the smaller associations. At one small state convention, a large charge was made for exhibit space, and it really looked like a money-raising scheme. It would have been much cheaper for the manufacturer to have hired a hall to display his merchandise and to have invited his friends to come and see his merchandise.

An attitude such as adopted by the association illustrated, is entirely wrong. We must change our attitude toward the manufacturers and learn to appreciate the work they have done and are doing for our benefit. Many changes have been made.

Are firemen responsible for all these improvements made during the past thirty to forty years? Can we say that *we* have built up our fire department to its present remarkable and excellent condition? No, we can not. We owe this entirely to the manufacturers who have, at their own expense, experimented, designed and built about all of the equipment that we now use.

You may say that manufacturers have a selfish motive, that they did it all to sell merchandise at a profit and thereby benefit themselves. To a certain extent this is true—in fact we must admit that they are entitled to make a profit in the same way that the fire-fighter is entitled to a fair wage. But if the manufacturers were interested solely in profit, we would still be limited to pumpers with a capacity and efficiency that were prevalent twenty years ago.

It must be conceded that manufacturers are guided by something more than a desire to make money. They are surely led by a desire to do some good, and to create something that will prove to be of real use and benefit to mankind. We must credit them with a desire to be of value to the fire-fighting profession and take cognizance of the trouble, worry, expense and chances assumed in promoting a new thing. We must not only reward them for their work but we must be willing to work with them, assisting them in every way possible. We should not place obstacles in their paths to prevent them in proving that the article that they have to offer is of real value to the department and community.

I claim that we are under great obligation to the exhibitor. He should be welcomed and not regarded as an outsider.

Any selfish motives that we may have should be set aside. Give the manufacturers due credit for their work and for their efforts to improve our fire-fighting equipment. Give them the chance that we have long denied them and help create a feeling that will show we consider them as welcome members to our group.

Let us play the game, and play it fair.

(Paper presented at convention of the Illinois Firemen's Association, Joliet, Ill.)

"Sherlock Holmes" Fails to Function for Sir Arthur Conan Doyle

The noted deduction methods by which Sherlock Holmes and his companion, Dr. Watson, solved so many baffling mysteries without the assistance of Scotland Yard, failed when the home of the creator of these fiction characters was destroyed. Sir Arthur Conan Doyle and his son are examining the property saved. Several valuable documents were rescued from the flames.

Oakland Reduces Its Fire Losses

Oakland, California, achieved the enviable record of cutting the per capita average fire loss during the past year to $1.13. This record was the subject of a tribute paid Oakland in the State Legislature's last session by Senator Rochester of Los Angeles.

"Despite a rapidly increasing population," C. C. Young, commissioner of public safety, declared, "there is a decreasing number of alarms turned in.

"The credit for this decreasing number of alarms must go in a very large measure to the activities of the Fire Prevention Bureau and the Board of Condemnation. During the two years of my administration the Condemnation Board has been responsible for the removal of 179 buildings unfit for human habitation or business enterprise.

"In addition to co-operation with the Condemnation Board, the Fire Prevention Bureau each year removed approximately five thousand hazards.

"These fire hazards include illegal obstructions, rubbish, shavings, illegal and defective chimneys, defective electric wiring, dangerous awnings, dry grass and weeds on vacant lots, etc.

"This bureau is also continually alert to safeguard lives in the event of fire by means of ordering the erection of fire escapes, stand pipes, sprinkler systems, ground floor pipe casings, additional exits to hospitals, theatres and department stores, fire doors, fire windows, etc.

"Every kind of business which in itself creates a fire hazard cannot start or operate without a permit from this bureau. In this way illegal construction is intercepted.

"Also, there is an inspection of the installation of oil and gasoline tanks and electric signs on buildings, marques and roofs. Inspection is made of motion picture theaters prior to the issuance of licenses. The inspection of manufacturing and storage of motion picture film practically guarantees that film explosion cannot occur as a result of spontaneous combustion."

CHARLES W. GEIGER.

More Boxes Installed in Chester, Pa.—Twelve additional fire alarm boxes have been installed in Chester, Pa.

Costa Mesa, Cal., May Form Fire District—A meeting has been arranged in Costa Mesa, Cal., to consider a plan to form a fire district.

Hudson-Mowhawk Firemen Change Name—Following the second annual convention of the Hudson-Mohawk Valleys Firemen's Association in Menands, N. Y., the name of the organization has been changed to the Albany County Volunteer Firemen's Association.

Many Persons Jumped From This Burning Hotel to Safety.

One person was killed, fifteen were hurt and four were missing as the result of the fire in the Iroquois Hotel at Atlantic City, N. J., last year. The department had a difficult task to prevent the blaze reaching numerous frame hotels in the surrounding area.

Old Hotels—And Heavy Casualties

Loss of Life Usually Large at Night Fires in These Buildings — Rescue Work Exceedingly Difficult

TWO types of hotels in particular represent severe life hazards: the old brick building with wood construction throughout, and the frame hotel, such as is found at seaside and summer resorts. The old brick type of hotel is encountered in almost every city. Its interior construction is such as to provide for extreme rapidity of spread of fire. The great number of vertical, concealed spaces through which fire may travel, the great bulk of combustible materials and the inflammable type of contents all contribute their share to making a hot and fast traveling blaze. Because such buildings are not erected to sustain heavy loads, early collapse of floors may be expected in the event of fire involving building.

In many cases the floors are supported by wood beams only, which are set in the brick work without proper capping. It requires but a few minutes of exposure to a hot fire to so weaken the beams that they will slip out of their sockets, and permit the floor to fall through.

To add to the speed of travel of fire, many of these hotels are provided with stairwells which start at the main floor and pierce the building its entire height. These wells are not enclosed, and are surrounded by combustible materials such as wooden hand-rails, lath and plaster walls, wooden stairs, as well as combustible carpets and decorations. These stairwells communicate directly on each floor to halls extending through the various floors. Once fire rises in the stairwell, heat and smoke may be expected to travel in all directions on the various floors, and unless ventilation is provided early there is a chance of the building being fully charged with smoke, and fire mushrooming quickly over the various floors, starting at the top of the building and traveling downward.

In addition, other vents and shafts are to be found leading from the basement of the building to the roof. These other channels provide a means for fire reaching from the basement to the upper floors in such a way as to permit fire to gain considerable headway before discovery.

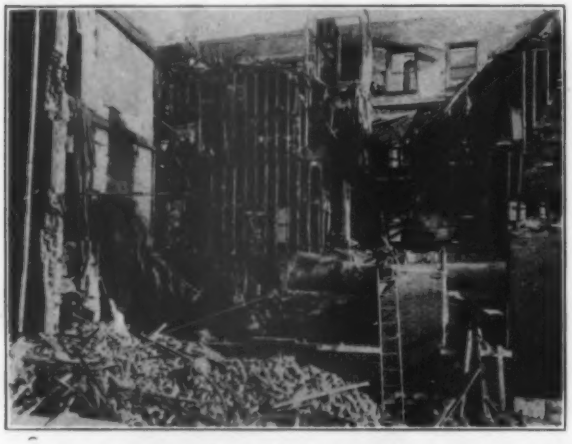
The frame type of hotel represents the worst of fire traps. Rooms are usually small, with the result that the occupancy is heavy, particularly during the summer season. Frame construction of this type creates a fire of tremendous heat, and astonishing rapidity of spread. Because of its combustible nature, precautions are rarely taken to provide any fire stops in the building, or to protect stairways or elevator shafts. The comparatively short season during which these structures are occupied does not warrant expensive workmanship. The flimsiest construction is therefore characteristic. During the busy season fire hazards are at their worst, due to congestion and rush of business. It is not surprising, therefore, that loss of life should be heavy in such structures once fire gains a hold.

There is one redeeming feature in connection with the frame hotel and that is its usual limited height, making it possible for a person to jump to the ground with less danger of serious injury than in the brick type of hotel.

Fire starting late at night in either the old type brick

hotel or the frame hotel, particularly in the summer months, may quickly involve the basement and then break away, traveling upward with great speed. The limited force on hand in the hotel office at night time makes it almost impossible for the force to warn all guests. Dependence is therefore placed on fire alarm gongs which may, or may not, operate.

Assuming such a fire starts in a basement, and suddenly breaks through on the ground floor, it will rise



Typical Example of Old Hotel Construction.

Note the quantities of inflammable materials, the studding, lath, wooden floor beams and wood roofing. Five women lost their lives at this fire, which occurred in St. Louis two years ago.

quickly in all vertical shafts communicating with the ground floor as well as with basement. It is apt to travel up the main stairway, quickly filling the various floors with smoke, and ignite combustible materials around the stairwells. It takes but a few minutes to involve the stairs and wood trimmings. Guests on the various floors are thus cut off from escape by means of stairways, and as the elevator facilities are usually entirely inadequate—even if they are available—to get the guests to safety.

Thus the fire department on responding to a fire of this type is faced with the huge task of removing all occupants from the building without using either stairways or elevators. Fire escapes, if present, will be of some assistance, but the difficulty the guests will experience in passing through hallways leading to fire escapes minimizes the effectiveness of this means of escape.

On the top floor, in particular, is the life hazard extremely severe. Not only have the persons on this floor less chance of getting to the street safely by outside means, but fire rising in any vertical shafts mounts to the top floor and quickly involves this floor. Pressure created by the hot gases causes these gases and smoke to penetrate crevices leading into various rooms. Communication of fire to rooms joining the hall on the top floor is thus rapid. If transoms over doors are open, the situation is indeed extreme.

Ventilation and Saving of Stairways Vital

Of supreme importance in operating at a fire in this type of building is the immediate provision of thorough ventilation. This can only be accomplished by opening up over stair and elevator shafts, making openings of sufficient size to properly drain the upper floors of smoke, heat and gases. This ventilation must be performed without a moment's delay if the department is to prevent the loss of life. Ventilation not only draws smoke, heat and gases away from the hall but also delays the spread of the fire, and thus enables the department to carry on its rescue work with greater effectiveness. If persons on the top floor are being forced by the advancing fire to mount window sills, the department has to do mighty fast work to avoid loss of life by persons jumping to the ground.

Second in importance to prompt and thorough venting is the saving of the main stair for use by the department as well as guests in effecting the escape of the latter. For this reason if the officer in charge feels there is a chance of saving the stairway, the first line should be immediately stretched in on the ground floor, and the stream directed up the stairwell to wet down fire partially. Following this the line should proceed up the stairway killing the fire, but only after a second line is in position to cover it and make sure that the retreat of the first line is at all times assured.

If the main stairway can be saved, it will mean that the department can use this channel for getting persons out of the building to safety. Incidentally, after the fire has been checked in the stairwell, the line should either be removed, by backing down, or else carefully placed to one side so as not to obstruct the safe and quick passage of occupants to street. Second engine company can usually be employed to good effect in stretching a line up to the top floor to kill any fire on this floor, and prevent its rising in the stair or elevator shafts. This, however, can only be done after ventilation has been properly provided.

The actual operations of extinguishing the fire in the basement will depend upon the size of the building, the layout of the basement, the extent of the fire, and other conditions which vary with each particular structure.

Where fire has originated in the basement and has reached such proportions as to spread upward by means of stair and elevator shafts, it is safe to assume that the basement is fully involved. In this case the use of cellar pipes and distributors is usually in order.

Saving of Life

As noted above, prompt ventilation and saving of main stairways are essential if quick rescue work is to

The Small Hotel Is Not Exempt From Fire Hazard.

Flames spread through this three-story hotel at Akron, Ohio, last year, resulting in the death of six persons. Many others were badly burned.

be performed. In some cases, however, it is not possible, due to the extent of the fire, to save the stairwell.

(*Continued on page* 821)

THE ROUND TABLE

For Practical Discussion of Current Fire Department and Fire Management Problems

JUDGING from the experiences of some fire department officers, if there were no insurance, there would be an absence of incendiary fires. The desire to collect or to sell certain real property to the insurance companies, in an unlawful manner, has prompted incendiary fires. And to make it possible to collect amounts out of proportion to the value of the property, the insurance carried is sometimes far in excess of what good business judgment would dictate.

Over-insurance has been blamed for many fire department troubles. According to a survey undertaken by this publication, if it were at all possible to do away with this evil, many fires would be eliminated.

The problem in full is printed in the box on this page. In the box on the following page is the question that will be treated in the next issue. If you have a problem that you would like to see handled by this department, or if you have some comments that you would like to make on the next question, write to the Round Table Editor, FIRE ENGINEERING, 225 West 34th St., New York, N. Y.

Here Is the Problem

Do you consider over-insurance as one of the real causes of incendiary fires?

If so, what action would you suggest to remedy the situation?

The Question

Chiefs are agreed that over-insurance is a scourge that should be wiped out if incendiary fires are to be eliminated. It is an opinion that prevails in all sections of this country. The replies received follow:

Albert Herring, Chief, Murphysboro, Ill.: Over-insurance is the direct cause of many fires and is a temptation to many persons to commit an unlawful act.

Financial gain is not always the cause for incendiary fires. They may be prompted by a desire to get revenge or to excite a quarrel. The problem is one which can be handled by the man who writes insurance policies.

Over-insurance can not be prevented by the fire department or by any fire prevention program. As a rule, the chief knows little of the amount of insurance involved at a fire, until the blaze is over and an investigation is made. I have made the statement many times that the best fire prevention agency we have today is the man who writes the policy. It is fair and just to give a man a fair amount of insurance on his property and contents. This can be accomplished by having a survey made of the property to be covered.

There was a case here of a man who had a four-room cottage and wanted $4,000 worth of insurance. The agent would not take the business. The man finally applied to an agent whose hunger for business overpowered his sense of value, and the policy was granted. The first agent came to me with the story. I had the policy cancelled and another for $2,000 was issued. In four months the place was touched off. It was proven that the cost of the building was $1,500. This case proves that the insurance policy serves as a temptation to many.

The problem of over-insurance has been taken up with local insurance men from time to time but little good has resulted because of the insurance agents failing to understand the problem.

W. H. Fuller, Chief, Vicksburg, Miss.: I believe that over-insurance is the cause of more than seventy-five per cent of all incendiary fires. Right here in our little city, which has a population of 20,000, we have had a number of incendiary fires due to this cause.

I believe that insurance companies in issuing policies should have competent inspectors to examine the buildings or contents of the buildings to be insured before a police is issued. If this is done a great number of fires will be prevented. I know of one particular instance where a party had three fires, two in his place of business and one in his residence, all within a year's time. I endeavored to secure evidence against him but was unable to do so. Finding he was unable to secure any more insurance he filed a petition for bankruptcy.

F. J. Redmond, District Fire Marshal, Norristown, Pa.: We are more than satisfied that over-insurance is responsible for practically all incendiary fires. It has been our experience in the last two years that the contents of buildings damaged or destroyed by fires have been over-insured. We are of the opinion that this is due to the fact that insurance brokers are more interested in the amount of insurance which they can write, on which they received a commission, than in the actual value of the property insured. Just recently we had a case of this kind where a large clothing dealer endeavored to place $25,000 additional insurance on a store and contents. We objected to this very strongly for the reason that about three years ago this concern had a serious fire which started in three different parts of the building at the same time. At the time of the fire the building and contents were over-insured. As another example I might cite the instance of a restaurant here that tried to take out $4,000 worth of insurance on contents, which if new, would not be valued at more than $1,500. The first insurance company turned this down. We found out later on that another insurance broker had written a policy for $8,000. However, after considerable correspondence we managed to have the policy cancelled. The policy was cancelled on a Friday and the following Monday there was a slight fire, the owner not knowing that the insurance policy had been cancelled. We have had other cases similar to these.

In answer to your second question I would suggest that more rigid inspection be made of the value of the property or the contents insured. The insurance should be based on a sound value and not for excessive amounts asked for by unscrupulous owners. I believe that insurance companies should check up on losses and not pay excessive amounts as was the case in a fire which took place on our Main Street. At this particular fire a small hole was knocked in the roof by a falling brick. However, there was no water damage or as a matter of fact any damage whatever. The insurance company involved paid a loss of approximately $4,700.

We feel that there should be an inspection at least twice a year to determine whether the property is over-insured or not.

F. H. Grabner, Chief, Baker, Ore.: I certainly do consider over-insurance one of the real and primary causes of incendiary fires. A few years ago we had quite a number of mutual insurance companies in our city and they had some very crooked agents. These agents would go around and urge people who already had all the

insurance they could carry to take out more. They would keep after them until they finally took out additional insurance. The consequence was that all the little fires we were having, the insurance was held by these mutual companies. I wrote to the main office and had them send a man here to investigate. They found conditions so bad that policies were cancelled. Today we have only one mutual company and very few incendiary fires. The better insurance companies have agents that are more careful in insuring property.

To remedy over-insurance I would recommend that the special agents inspect property more frequently and check up on their local agents. I think the average agent often gets too ambitious and is not careful enough in looking over the property to be insured. In my experience I have found that very seldom do you have an incendiary fire where there is a small amount of insurance. This proves that where property is over-insured and business conditions are not good, people sell out to the insurance companies.

E. A. Logan, Chief, Shrewsbury, Mass.: I think over insurance in many cases is a primary cause of the majority of incendiary fires. In my opinion measures can be taken to reduce this type of fire. One method might be legislation that requires insurance to file with the Board of Assessors in each town or city the amount of insurance carried by the property owner. A comparison could then be made between the assessed valuation of such property and the amount of insurance carried. If the difference appeared unduly large the fire department inspectors could then check up on said property to see the reason therefor. Another method might be legislation compelling the insurance companies to pay full face of the policy, thus making it expedient to the companies to make frequent inspections to check up on the value of the property insured and the amount of insurance carried.

It has been my experience that at the present time very little inspection or check up is made by the insurance companies when writing insurance and this condition should be remedied.

C. E. Jenkins, Vice-Pres., Texas State Firemen's Ass'n., Bryan, Tex.: I have found over-insurance to be divided into two classes. First intentional and second by mistake. The latter is harmless from a fireman's viewpoint. The former, is nearly always part of a plan to have a fire and collect insurance.

For a number of years I have secured the co-operation of our local insurance agents. If they have a request for more insurance than they think should be carried, I go with them and make an estimate on the building as I am a building contractor. This is done without cost to them. We then decide upon the amount to be carried, they abiding by this decision. Other agents will not write additional amounts on the risk in question. Regarding mercantile stocks we ask for and see the tax renditions. Here they are on a fifty per cent basis. This we double and if there is much difference the insurance is refused. We have had but one mercantile fire that was plainly incendiary.

M. M. Tawney, Chief, Harrisburg, Pa.: I certainly believe that over-insurance is the cause of many incendiary fires. In my opinion a remedy for this would be to hold the insurance company or agent writing the insurance responsible. This would force them to make an examination of the premises before insuring. Insurance adjustors should appear as witnesses in arson suits.

An example of over-insurance is in the instance of a barn which was burned. In this barn was supposed to be stored certain contents which were entirely destroyed. The insured claimed the following, based on the insurance issued by the agents. They claimed four hundred dollars on one item. It was found later that this material was not in the building at the time of the fire. On another item one thousand dollars was claimed. The original invoice covering this material amount to $947. At the time of the fire approximately $125 worth of material was in the building. Also four hundred dollars was asked for a bed room suit which was offered for sale at ten dollars. The contents listed in the claim for insurance were later found stored in the house in which the insured formerly lived. These facts are a record in the state police office.

Chas. A. McGinley, Chief, East Orange, N. J.: My experience has taught me that with incendiary fires the person insured always carried far more insurance than the property is worth. All persons taking out insurance should be compelled by law to furnish a list of all the actual property and the value of same. The agent selling insurance should also be compelled by law to check each list. In that way the insurance company could very quickly discover anyone trying to be dishonest. The person caught should be denied the right to secure insurance in the future. If a complete chech was made each time property was insured, I believe that incendiary fires would be reduced to a minimum.

Lawrence E. Reif, Chief, New Haven, Conn.: Yes, I believe over-insurance is the cause of incendiary fires. We were troubled quite a bit with fires of a suspicious nature. Investigations proved that the properties involved were over-insured. At the present time the insurance companies investigate all cases especially where application is made for large insurance. This method has eliminated quite a few of these fires. We had a case this past winter of a fire in a residential section that could not be proven as incendiary. However, we did find that the policies asked for were twice the value of the contents. While policies were not issued there was enough on the property to more than cover all losses.

A. G. Fisher, Chief, Ambridge, Pa.: I have found in quite a few cases that a place looking suspicious is often over-insured. By careful investigation the excess insurance can be cancelled and thus keep down incendiary fires. I certainly believe that over-insurance is the cause of many suspicious fires. In most cases when a persons over-insures his property he has it in mind to sell out to the insurance company. Cooperation between insurance companies is one way to overcome this difficulty. That is, for each company to check to ascertain the amount of insurance carried by other insurance companies. They should also thoroughly inspect the property and the stock to be insured and not take the word of those seeking insurance.

Lewis L. Whipple, Chief, Forest City, Pa.: In my experience I have found that over-insurance has a lot to do with incendiary fires. I have a recent fire in mind where the tenant of a building increased the amount of insurance on his household goods from four hundred dollars to two thousand dollars. This was done in March and in June he had a fire. Upon investigating the matter I found that the material insured was only worth five hundred dollars at the most. The owner of the building carried only two thousand dollars worth of insurance and had to sustain a great loss.

I think if the insurance agents would make a more complete investigation of the material or property to be insured and put a fair value on same, it would tend to reduce this type of fire.

Ralph Eddie, Chief, Webster Groves, Mo.: We have had two incendiary fires in the past year. One was the result of labor trouble and the other was due to a slump in the shoe business. However, I will say that I believe over-insurance is one of the real causes of incendiary fires. A thorough inspection should be made of all material or property to be insured before the insurance is placed. This should also be done if additional insurance is asked for by a party already carrying policies.

I can cite an instance of a man who carried six thousand dollars worth of insurance on stock worth only about six hundred dollars. Seventy-five per cent of the shoe boxes on the shelves were empty. This fact was overlooked by the insurance company.

(*Continued on page* 819)

Here Is the Problem for the Next Issue

What method do you employ for extinguishing chimney fires?

Has it proven satisfactory?

Does it result in any appreciable water damage or other injury to property?

What is "Legal" Use of Fire Equipment?

Court Decides That City Is Not Liable for Failure to Pump Out Cellar With Fire Apparatus—Some Other Important Decisions

By LEO T. PARKER, Attorney-at-Law, Cincinnati, Ohio

SINCE considerable discussion has existed from time to time involving the question of what is legal use of fire equipment, the leading case of Hawkins vs. City of Springfield, 186 S. W. 576, imparts unusually interesting information. Here it was shown that a property owner filed suit against a municipality to recover damages for the alleged negligence of the latter's employes and officials in failing to remove obstructions from a public sewer, resulting in overflowing and flooding the basement of his store, injuring valuable merchandise stored therein.

The property owner testified that he had notified the city employes of the presence of the obstruction in the sewer, but that the latter failed to remedy the condition, although they had ample time to remove the obstruction and prevent the overflow.

It was proved that after several methods of cleaning the sewer proved unsuccessful, the proprietor urged the city officials to use its fire engine to pump the water from the sewer.

The city refused to comply with this request contending that the fire apparatus belonged to the fire department and was provided exclusively for the prevention and extinguishment of fires and not to clean sewers.

It is interesting to observe that the court held the city not liable for the alleged negligence in refusing to use fire equipment to pump water from an obstructed sewer, and said:

"The question of hoding a city liable for negligence in not using its fire engines and apparatus promptly or effectively in cleaning out obstructed sewers to avert threatened injury to a property owner is a novel one so far as we are able to find with the assistance of able counsel on either side. It will be granted that a city, having constructed and put in operation a system of sewers, is required to keep same in a reasonably safe and effective condition and to use ordinary care and diligence to keep same free of obstructions likely to cause damage . . . It is well settled law that the maintenance and use of the fire department and equipment of a city belongs to its governmental functions. The City cannot be held liable in damages for either a negligent use or failure to use its fire engine and equipment. It is not liable for acts of omission or commission, misfeasance or nonfeasance with reference thereto . . . It is not reasonable to require the city to divert such apparatus from the highly important use for which it is maintained to an entirely different use. Such engines and appliances should be continuously kept in the highest state of efficiency and availability for instant use in case of fire."

The importance of this decision is readily apparent when it is considered that various higher courts have held municipalities liable in damages for loss and injury to goods resulting from leaking water mains which the city employes negligently failed to repair.

City Not Required to Pay for Fire Equipment

In Openchain-Boyer Co. Stores vs. Village of Mercer, 17 S. W. (2d) 376, it was disclosed that a State law provides:

"May Pass What Ordinances.—The board of trustees shall have power to pass by-laws and ordinances . . . to organize and maintain fire companies; to prevent and extinguish fires . . ."

The board of trustees of the incorporated municipality of Mercer consulted regarding purchasing certain fire equipment and finally signed a contract for the purchase, and entered the transaction in the book of minutes.

The seller shipped the equipment and it was accepted by the city. Later, the municipal officials refused to pay the contract price and the seller filed suit.

The counsel for the city insisted that, in the absence of an authorizing resolution or ordinance, the individual trustees or persons signing the contract, if any, and the person or persons signing the unauthorized warrants, are personally liable instead of the city.

It is interesting to observe that the court held the city not bound to pay for the equipment, stating important law as follows:

"It is true that a municipal corporation may ratify unauthorized acts and contracts of its officers within the scope of their corporate power, but such acts must be performed in accordance with an ordinance duly passed . . . The contract will be held good if it be found the minutes in evidence show the incorporation of a resolution containing the essential elements of an ordinance, but it appears the recitation in the minutes is to the effect that the matter of a chemical engine, was thoroughly explained and discussed, and the chairman authorized 'to talk with business men of Mercer in regard to the engine and in regard to the price and to donation. Contract signed by all members present.' The act was not even in the form of a resolution or motion, and could not, therefore, be considered as having the effect of an ordinance. . . . There appears no minute authorizing the contract. To call the said minutes an ordinance, either in form or substance, would be an abuse of the terms of the statute . . . We must, therefore, hold that the only method by which the board of trustees could bind this defendant (city) for the purchase of this engine, in this form of action, was by ordinance authorizing the contract of purchase."

Firemen's Compensation Law Not Applicable to Volunteer Firemen

State laws are read by the courts in view of interpreting the intended meaning of the law-making body when the law was enacted.

For instance, in Hartman vs. Village of St. Clair Shores, 225 N. W. 493, it was disclosed that a man named Hartman was a carpenter and was daily engaged at such work in a village. At the same time, he was employed by the village as a volunteer fireman, and he was on the fire department's roll as such. The village had no regular firemen working for daily or weekly pay. A volunteer fireman received a specified payment for each fire call, if he was one of the first six to respond.

One night Hartman answered six fire calls and he was paid $5 for this service. He was seriously injured when answering the last call and sued to recover compensation under the provisions of a statute which makes the daily wage of a fireman, at the time of the accidental injury, the basis for determining his compensation. He contended that he was entitled to 66 2-3 per cent of his average weekly wage on a basis of $5 a day, the amount he earned on the day of his injury.

However, the court held the fireman not entitled to compensation, under this State statute, saying:

"We pass all questions involved, save one, and that is whether at the time of his injuries the plaintiff (fireman) was receiving a daily wage within the meaning of the statute. . . . The board found that his daily wage was $5. We think the board was wrong. The undisputed facts afford no basis for determining a daily wage. The word 'daily' implies more than one day. 'Daily' in the sense that it is used in the statute means day after day; day by day. The plaintiff did not work daily for the defendant (village). He was not paid for time He was paid by the job. He was paid so much for a fire and, if he did not report on time, he got nothing. On the day of the accident, he just happened

> "IT is not reasonable to require the city to divert such apparatus from the highly important use for which it is maintained to an entirely different use. Such engines and appliances should be continuously kept in the highest state of efficiency and availability for instant use in case of fire."—Court Decision.

to be paid $5 because there happened to be six fires that night."

Petition for Compensation Must Be Filed Within Statutory Period

It is important to know that firemen who are injured while attending to their regular duties may be barred from receiving compensation, if filing the claim or petition is delayed beyond the period specified by law.

For illustration, in Craft vs. City of Trenton, 146 Atl. 366, it was disclosed that a city employe who was injured, was denied compensation because he failed to file his claim within the statutory period of time. He testified that he would have filed his petition with the Compensation Bureau within the time allowed by law had it not been that the members of the bureau requested and directed him to await the action of said bureau and the city in arranging an informal investigation of the facts.

However, the higher court refused to authorize payment of the compensation, saying:

"Assuming for present purposes that the Compensation Bureau did advise and direct petitioner (employe) as he alleges, and assuming that . . . it had been conduct on the part of the city, it is evident that such conduct by the board cannot be attributable to the city . . . There is nothing in the petition or affidavits to show that the city ever took any step or did any act, by itself or by any authorized agent, which could be deemed an acquiescence in any extension of time for petitioner (employe) to file his petition, nor which could possibly be deemed to have led or caused petitioner to wait over the year."

Assent of Commissioner Necessary for Reinstatement of Discharged Firemen

In Skold vs. Chief of Fire Department of City of Cambridge, 165 N. E. 682, a member of a fire department was suspended without pay and no notice was given to him of his removal or suspension.

Soon thereafter he made application to the chief of the fire department to reinstate him. The chief stated that he could not do so until he had secured the assent of the civil service commissioner who refused to approve of the reinstatement. The fireman then made application to the mayor, who has supervision and control of the fire department. Upon the latter's refusal to authorize the reinstatement the fireman sued to compel the chief to reinstate him. However, the Court refused to grant relief, saying:

"One who has been legally suspended for a definite period is not entitled to reinstatement unless he obtains the assent of the civil service commissioner. . . . A person is separated from the service who for any reason is discharged or suspended for a definite period. It cannot be disputed that in this case the petitioner (fireman) was separated from the service. For a valid reinstatement it was necessary to have the assent of the commissioner. Whether the appointing officer desired, or did not desire, to make the appointment, if he sought to reinstate, he needed this assent. Until it was obtained, no valid reinstatement could take place and the person remained separated from the service."

Old Street Markers Put to Good Use

Jacksonville, Fla., has a number of arrows that served as markers when the city had one way streets. When the one-way thoroughfare plan was abandoned, the signs were stored for possible future use. George P. Allen, chief of the city's signal bureau, repainted them red with the words "fire box" in white, and they are now used to indicate the location of fire alarm boxes. Mr. Allen is shown with one of the new signs.

When Policy Written by Agent on Own Property Is Void

Generally speaking, a fire insurance policy written by an insurance agent on his own property is void, if the property burns before the company approves the policy.

For example, in Martinek vs. Firemen's Ins. Co., 225 N. W. 527, the agent of the Firemen's Insurance Company insured his own house which burned before the policy was approved by the company. In holding the company not liable, the Court said:

"It seems to be settled law that, if an agent is personally interested in the property insured, no policy issued by him thereon, or act done by him in connection therewith, binds the insurance company, unless known and assented to by it. . . . When the agent issues a policy on a plainly undesirable risk of his own, the rule of frank disclosure to the principal applies with full force."

City Not Liable for Fire Loss

In Mahe vs. City of Winston-Salem, 130 S. E. 169, the owner of property brought suit against a city to recover damages for the alleged negligence of the latter's employes in permitting curbstones and rocks to collect around a fire plug or hydrant, for a period of about six or eight months, thus preventing the flow of water resulting in destruction of his house by fire.

The facts disclose that when the fire department arrived in response to the call, there was only a small blaze on the top of the house. However, by reason of the obstruction around the hydrant, about ten or fifteen minutes were consumed in removing the same, and in the meantime the fire became uncontrollable.

The testimony proved that the rocks were placed around the hydrant, when a street in the vicinity was being paved, and for some reason the city employes failed to remove the debris prior to the occurrence of the fire.

The property owner contended that the city employes violated a city ordinance against obstructing fire hydrants, whereby the fire department was unable to save her home from being destroyed by fire, thus resulting in the city's liability.

The Court, notwithstanding these facts, held the city not liable, stating the law on the subject, as follows:

"A city may not be sued for loss sustained by fire, where the wrongful act charged was neglect in cutting of water from a hydrant, but for which the fire might have been extinguished, or in failing to keep a reservoir in repair, whereby the supply of water became inadequate, or because the pipes were not sufficient or out of order, or because the officers and members of the fire department were negligent in the performance of their duties. . . . The extinguishment of fires is a function which a municipal government undertakes in its governmental capacity, and in connection with which, in the absence of statutory provisions to the contrary, it incurs no civil liability, either for inadequacy in equipment or for the negligence of its employes."

Failure to Read Bond Does Not Bar Owner's Right to Correct It

In United States Fidelity & Guaranty Company vs. Parsons, 122 So. 544, it was disclosed that an official named Parsons authorized a man named McNeill to obtain a bond to guarantee completion of certain work in accordance with the terms of the contract. By mistake the bond was issued to McNeill.

Later when litigation developed over the contract it was disclosed that McNeill had failed to read the bond and, therefore, did not know that it had mistakenly been issued to himself instead of to Parsons.

However, the Court reformed the bond and issued it to Parsons, whereby the bond was made effective. The Court said:

"The right to reform is not barred by reason of the failure of the agent (McNeill) of the real beneficiary (Parsons) to read the bond and discover the mistake. . . . The general rule is that, as to fire insurance policies and indemnity bonds, parties are not precluded from correcting a mistake, although the paper was not read over, or was carelessly read by the beneficiary, but if one has carelessly read or otherwise failed to read, and moves promptly to have the mistake corrected so that the rights of the other parties to the contract will not be affected thereby; such mistake will be corrected. . . . The mere failure to read contract, or to have it read, is not necessarily such negligence as will bar the right to reform the same on the ground of mutual mistake."

Motive of Crime Leads to Conviction

Testimony tending to prove the motive of a criminal act

(*Continued on page* 825)

WITH THE EDITOR

Fire Prevention Week and The Chief

Chiefs throughout the country are now beginning to turn their attention to the observance of Fire Prevention Week. It is only in comparatively recent years that this period—extending from the Sunday to the Saturday including the date of the former Fire Prevention Day, October 9—has been so observed. The origin of the day was the setting apart of the anniversary of the great Chicago fire as an annual period for the consideration of matters of fire prevention. From this practice, inaugurated in a few cities, the custom grew in popularity, until the day was observed pretty generally throughout the land.

The logical extension of the period from one day to a week followed as a natural sequence. The idea spread rapidly, and now the observance of the week as a time set apart for instruction and consideration in all matters of fire fighting and fire prevention is a national custom.

Chiefs of Fire Departments and their men, Chambers of Commerce, Rotary and civic clubs and associations, churches, schools and the public at large now all join in setting apart this week as a time to devote to especial consideration of the subjects in all of their ramifications.

Housecleaning and the removal of rubbish and fire breeding accumulations are part of the necessary accompaniments of the observance of the week. This should be stressed by the Chief in his rounds of the schools, associations and churches during the week. Careful inspection of all electric fixtures should also be carried out. Business houses should be persuaded to go over their establishments from top to bottom, to eliminate all fire hazards that may be discovered. The Fire Department should, where possible, send out floats and establish exhibits, emphasizing fire precautions and calling attention to dangers to be avoided. In every way, during the week, the minds of the people should be directed to and be kept upon matters connected with the elimination of fire dangers. Only in this way can the benefits accruing from Fire Prevention Week be assured.

New York Seeks Amendment to Fight Forest Fires

A peculiar situation in the laws of the state of New York has been revealed through a proposed amendment to the constitution of the state to be voted upon at the November elections. It has been brought to light through a ruling by the Attorney General of the state.

Heretofore, it had been understood that under Section 53 of the state conservation law, the State Controller, subject to the approval of the Governor, had authority to make a temporary loan not to exceed the sum of $100,000, in any fiscal year for the expense of fighting forest fires, provided the Conservation Department certified that an emergency existed. However, about two years ago the Attorney General ruled against an emergency appropriation asked for by the Department of Agriculture and Markets, on the ground that no such a fund was called for in the constitution. Naturally, this ruling also covered any emergency loan made by the Conservation Department, and thus left the state unprotected as regards funds for fighting forest fires of great extent.

To remedy this situation the last Legislature of the state passed a concurrent resolution amending Section 3, Article 7, of the state constitution, which now reads that the state may contract bills to "repel invasion, suppress insurrection or defend the State in war," by adding the words "or to suppress forest fires."

As all amendments to the state constitution must be ratified by the electorate before they can be adopted, the people will be asked to vote upon the addition of these five words to the constitution, and thus insure the availability of sufficient funds for the proper fighting of forest fires, no matter to how great extent they may occur.

It is hardly needful to point out to fire department officials the importance of this amendment, but the general public will need to be thoroughly informed as to the necessity of passing it. It is proposed to start an intensive campaign of information on the subject, and Chiefs of Fire Department in the state should do all in their power to help along this cause, by exerting the influence of their positions as expert fire fighters to spread information to the voters on the need for the passage of the amendment.

Fining an Oil Company For Negligence

The prevalent idea that a man or a corporation which suffers a fire, no matter whether by his or their negligence or not, is a fit subject for sympathy, should receive considerable of a jolt through the action of a European country which recently fined an oil company a sum amounting in our currency to nearly $5,000 for gross negligence in connection with a bad fire in its petroleum wells. This action was taken on the ground that the company had failed to take the necessary precautions to prevent such a disaster.

While, of course, there are fires that are accidental and that no amount of human foresight or precaution could have prevented, these, it is beginning to be recognized, are comparatively few and far between. Statistics amply back up the assertion that the great majority of fires are either the result of deliberate premeditation by some one, or else are caused by the neglect of proper precautions.

imperfect or slovenly workmanship, or carelessness in matters of housekeeping.

In all such cases, except those of incendiarism by outside parties, the individual or the corporation might well be held responsible for all damage done to the property of others by the fire or the water used in extinguishing it. In European practice, this is an established principle. In this country, up to comparatively recent times, such an idea would have been frowned down upon. Now, fortunately, the justice of the thing is beginning to be recognized, and the man who, through carelessness, has a fire, and causes damage to his neighbor's property, is coming to be looked upon as just as liable as for instance the individual who smashes the automobile of another through careless driving.

Better still, the law in many states has recognized this principle, and ordinances defining liability for damage from careless or deliberate fires are being placed upon the statute books. This is a very distinct advance, and eventually the man who has a fire through carelessness or neglect of proper precaution will be treated as just as liable to the law as any other guilty of its infraction.

Louisiana Firemen to Meet

The twenty-fourth annual convention of the Louisiana State Firemen's Association will be held in Jennings, Sept. 19 to 22.

Registration of members will take place the afternoon of Sept. 19 and will be continued to the following morning. During the afternoon of the first day there will be a luncheon and theatre party for the ladies and a smoker for the men.

The convention will be called to order Sept. 20 by President R. A. Bogan, chief of fire department, Baton, Rouge. A representative of the Louisiana State Fire Prevention Bureau will present a paper on "Hazards of Natural Gas." Chief J. W. Miles, of Crowley, delegate to the International Association of Fire Chiefs, will present his report. Other talks scheduled are "Fire Prevention," by R. J. Gregory, state fire marshal; "Fire Prevention in Public Schools," by W. P. Arnette, superintendent, Jeff Davis Parish Schools; "Fire Prevention and the Citizen," by Louis Krielow; "Cooperation of Volunteer Companies," by W. A. Robertson, Opelousas, and "Relationship of Insurance Commission to the Public."

In the morning the ladies will be taken on a tour to Lake Arthur and a special luncheon will be served. In the afternoon the firemen will be treated to an automobile trip to Welsh.

Fire Pump on Display at Berlin Exposition

At the Water and Gas Exposition held in Berlin, Germany, there was displayed a fire pump that is mounted on the front of an automobile to serve as a fire apparatus unit.

PLAN NOW TO ATTEND THE CHIEFS' CONVENTION

BIRMINGHAM is preparing a royal welcome for the Chiefs who attend the 57th Annual Convention of the I. A. F. C. The program promises both practical and entertainment features of especial interest.

Every Chief should make his plans now to be at Birmingham, Ala., October 22-25.

On Saturday morning, John M. Evans, chief of New Orleans Fire Department, will lead the round table discussion. At noon there will be a luncheon for delegates, members and their guests at the Jennings Rotary Club. In the afternoon, a tea has been arranged for the ladies. From seven to nine in the evening there will be a water fight, and then dancing will be enjoyed.

Entertainment and a barbecue have been arranged for Sunday at Lake Arthur. This will officially close the convention.

Charleston Discovers Old Fire Record

A research worker discovered a news item that shows that fire protection in Charleston, S. C., dates back much earlier than Chief Louis Behrens realized. The item was printed September 7, 1734, concerning a contemplated purchase of fire apparatus. The paid fire department developed 150 years later. The news account is as follows:

"This is to give notice that I, John Wilson, have left a very good fire engine with John Laurens Sadler of Charleston to be sold (for use by said town) by subscription; about eighty pounds is already subscribed, and the price of the whole is two hundred and seventy pounds. Any person that has a mind to encourage the keeping of so beneficial an instrument, may apply to the said John Laurens who has the subscription list and the said engine to be viewed, and has also engaged besides his subscription, to keep the engine in repair, and upon all occasions to have it ready and in order to be used."

It is presumed that the subscription price was raised and thus Charleston's first fire engine was bought in English money in 1734.

New Mexico Firemen Hold Convention

The seventh annual convention of the New Mexico State Firemen's Association was held in Gallup, N. M., August 26-28.

Mr. Adams of the U. S. Forest Service exhibited motion pictures on fire prevention, and told how the Forest Service works to prevent and extinguish fires. Chief R. V. Miller of Clovis spoke on "Pennies Behind the Fuses." In the evening there was a stag banquet at the Elks Club.

The afternoon of August 27 was taken up with an outdoor program. Demonstrations were given in first-aid and mine-explosion work, the use of Foamite, a fire chief's foot race and a water fight were staged, and a parade was arranged.

G. L. Mulligan of the Mountain States Inspection Bureau spoke on the "Firemen's Short Course." The members voted to combine next year's convention with a firemen's short course. Julius Pearse had for his subject, "Public Relationship of the Fire Department." P. D. Miller had a paper on the "Cooperation of Members."

The association voted to issue membership buttons. It voted to join the National Fire Protection Association.

San Diego, Cal., to Buy Pumper—The purchase of a pumper not to cost over $16,500 for San Diego, Cal., has been authorized.

Fire House at Arverne, L. I., Completed—The new fire house at Beach 58th street and Rockaway Beach Boulevard, Arverne, L. I., N. Y., has been completed.

Long Beach, Cal., Rejects House Bids—All bids for the construction of a new fire house in Long Beach, Cal., have been rejected and new bids will be invited.

Franklin Opens Fire Protection Office—William F. Franklin, for over fifteen years with the Gamewell Company has opened an office at 420 Lexington avenue, New York City, as a fire protection consultant. He resigned from the Gamewell Company on June 1, 1929.

Questions and Answers

NOTE—Readers are invited to send in questions, which will be answered in the order received. Names are omitted from questions unless otherwise specified

Capacity of Hydrant

To the Editor:

Will you kindly answer at your earliest convenience the following questions:

1. A single line of 2½-inch hose laid from a gravity hydrant is connected up by means of a reducer to a six-inch hard suction which in turn is connected to the pumper intake; 6-inch suction is about 22 feet in length. Just what is the advantage of such a hook up? If there is an advantage, where should the six-inch suction be connected, i.e., at the hydrant end of the line or the pump end of the line?

2. We will assume a gravity hydrant has a capacity of 100 gallons per minute. The hydrant is provided with two 2½-inch outlets and one 4½-inch steamer outlet. Will the hydrant discharge its capacity of 100 gallons per minute through a single 2¾-inch outlet, provided the hydrant valve is wide open, and just what would happen if the other 2½-inch outlet were opened?

S. A. H.

Answer: In regard to your first question, probably the only advantage of the layout as given, where the 2½-inch line is attached to the hydrant and the 6-inch suction to the engine, is the speed in making the connection, where the line is being stretched from the hydrant toward the fire. There is no hydraulic advantage to be considered, for in either case the friction loss from the hydrant to the engine is the same. In either instance, should a partial vacuum be created at the engine, the 2½-inch line would tend to collapse, thus interfering with steady flow of water from the hydrant to the engine. In other words, in either case should the engine draw more water from the hydrant than the hydrant will supply at satisfactory pressure, there may be interruption in the flow through the 2½-inch line.

With regard to the second question, if the hydrant will discharge 1000 gallons of water per minute through a single 2½-inch outlet, it will discharge more through two such outlets, and still more through two 2½-inch and one 4½-inch outlets. The capacity of a hydrant is usually given as the flow from all outlets when fully opened, as well as having the main valve fully opened. The pressure at the hydrant discharge outlet may be very low, indeed.

As an example, if a hydrant is discharging 1000 gallons of water per minute through a 2½-inch outlet, the pressure will be in the neighborhood of 40 pounds at the outlet.

If two 2½-inch outlets are used, and 1000 gallons of water are being discharged, the pressure at each outlet will be in the neighborhood of 10 pounds. If the hydrant is discharging 1000 gallons of water per minute through two 2½-inch and one 4½-inch outlets, the pressure at each outlet will be in the neighborhood of 2 pounds.

Thus you will see that the number of outlets and their size determine how much water a hydrant will discharge.

Should a 2½-inch outlet be opened full, and additional outlets subsequently opened, the pressure at the first employed outlet will of course drop when the other outlet begins discharging water.

Engine Pressures and Stream Range

To the Editor:

Will you please set me right on the following questions:

In order to reach the top of a derrick, or tower, of a certain height with an effective hose stream, I would proceed as follows:

Lay two 400 foot lines of 2½-inch hose siamesed into a deluge set with 1¼-inch tip. 750 gallon pumper employed. Engine pressure 147 pounds, nozzle pressure 90 pounds.

If the above layout is correct, what will be the result of changing it to the following:

Hose layout same as before except that two pumpers, one of 750 gallons and another of 400 gallons capacity will be employed, each pumping into separate lines of hose. What is the engine pressure of each, and also what quantity of water will be delivered by each pumper? What is the nozzle pressure?

If pumper is operating with vacuum thereon and your supply of water is limited and you fail in your efforts to reach a fire with a hose stream (line equipped with 1 inch nozzle), closer approach to the fire being impossible; what change in layout would you make in order to get stream on fire.

C. F. W.

Answer: With the layout given, and 90 pounds at the nozzle, the engine would be pumping 438 gallons at 147 pounds pump pressure. Pump pressure is secured by Underwriters' formula.

Engine Pressure=N. P. × (1.1+KL).

Where nozzle pressure is 90 pounds, K for two parallel lines of 2½inch hose fitted with 1¼-inch nozzle, is .066.

L is the number of 50 foot lengths of hose in either line or 400÷50=8.

Then E. P.=90 × (1.1 + .066 × 8).
=90 × (1.1 + .528)
=90 × 1.628
=146.52 or 147 pounds.

Now if the layout is changed so that two engines do the pumping, one through each line, and one engine has a capacity of 750 gallons and the other 400 gallons, the nozzle pressure and discharge will be precisely the same, if the 147 pounds is maintained at each engine.

Ordinarily where two engines are pumping through parallel siamesed lines, the pressures at the two engines are maintained at the same figure. If they are in this case, the nozzle pressure will be 90 pounds and the discharge from each engine will be 219 gallons per minute. Either of the engines should be able to discharge 219 gallons per minute at 147 pounds.

Of course, either engine can be made to deliver more by increasing its pressure above that of the other, but such is not commonly done in layouts of this sort.

So if the pressure at each engine is the same, each one will discharge the same amount of water.

With reference to the second question, if the stream from one-inch tip will not reach the fire, and a closer approach is impossible; also, pumper is taking all the water that is available, the only thing to do to get a greater range is to reduce the size of tip. By putting on a ¾-inch tip you will probably be able to get the range desired, as well as keeping well within the supply of water available.

Questions for Engineer

To the Editor:

Will you kindly answer the following questions which were asked during an examination for engineers:

Question 1. What are the duties of an engineer on assuming charge of a motor pumping unit?

Question 2. What general care would you give to motor pumping unit after returning from a fire?

Question 3. How would you make a compression test: a vacuum test on a pumper?

Question 4. If your motor is misfiring, how would you investigate for trouble in the motor? In the fuel supply? In the ignition? What may cause pounding in a gasoline engine?

C. T.

Answer 1. An engineer upon assuming charge of a motor pumping unit must first make sure that the unit is in condition for immediate operation. Points which must be covered by inspection are: that radiator is filled; that gasoline tank is filled; that the crank case is properly filled with oil, and that the apparatus is otherwise properly lubricated. Condition of battery should be checked up as well as brake adjustment. Inspection should be made to determine that all bolts are tight; that all equipment required on engine is in place and is in good condition. Defective equipment, or missing equipment, should be reported immediately to a superior officer. Various fire departments have different rules governing procedure in making inspection and in reporting defects, but the above will apply to almost any department.

Answer 2. Upon returning to station after a fire, thorough examinations of apparatus should be made, and all bolts tightened which may have worked loose. Attention must also be paid to the brakes and steering gear, and any defective parts reported immediately to superior officer. Fuel and oil should also be checked up as well as general lubrication of apparatus. Apparatus must be properly cleaned and polished. Mud must be removed from wheels and under-carriage and all water carefully wiped off the body and equipment. Check up water in radiator and see that tires are properly inflated (if pneumatic tires are used). Also note that all appliances are in their proper places. Missing appliances or damaged equipment should be reported at once to superior officer.

Answer 3. By compression test it is assumed that a pressure test is referred to. Pressure tests as made on steam fire engines are not advisable for motor pumping engines, but a one half hour run at high pressure serves to show the action of motor and pump under high pressure. To make such a high pressure test a line of hose is stretched from the engine and suitable size nozzle placed thereon. The function of the layout with nozzle is to provide a means for determining how much water is discharged per minute. This is done by use of nozzle pressure gauge and discharge tables. When the layout has been completed, pump is placed in pressure gear and operated, with manipulation of discharge gate to which a line of hose is attached, so that pressure of 250 pounds per square inch is maintained in the pump. After this is done the pump is allowed to operate for one half hour to determine the performance.

The vacuum test is to determine the ability of an engine to draft from "suction." Intake must be equipped with compound suction gauge, or one of the suction caps should be tapped to receive a compound gauge. Place suction caps on intakes, open one of the discharge gates and then with engine in "capacity" gear, open throttle, allowing the engine to run at a moderate speed, and meanwhile observing the readings of the compound gauge while running, and after shutting down. The drop of the vacuum after shutting is an indication of the condition of the suction valve, provided all joints are good.

Answer 4. If the motor runs well at high speed, but misses on low, it is an indication that too much fuel is being fed. This may be verified by black smoke discharged from the exhaust, strong gasoline odor, and reddish flame from the exhaust pipe. It also may be due to weak magneto or battery spark.

Where motor misses when running at speed, it may be due to lack of sufficient fuel, indicated by popping of carburetor; exhaust pipe clogged; poor ignition which may be due to broken wire or loose connections, vibration causing intermittent contact; worn or loose timer. If misfiring is regular, that is if this is on definite strokes, the trouble is likely with the spark plugs, which may readily be removed and checked up. Occasionally trouble originates from the magneto breaker point being dirty, worn, or burned. Also the magneto collector ring brush holder may be punctured. These can be determined by inspection. A loose inlet manifold occasionally causes missing of fire as well as air leak around spark plugs, and valve port caps. These can also be determined by inspection. Water in gasoline occasionally causes "missing."

Where it is believed the trouble is in the fuel supply, a check-up of the carburetor will usually indicate whether the supply is deficient or not. Where vacuum fuel tanks are employed, a check up of vacuum tank will determine whether or not fuel is being regularly delivered by fuel lines from gasoline tank. In this way stopped gas line may be detected.

As noted above, water in gasoline occasionally causes trouble, and this can usually be determined by draining the carburetor, water collecting at the bottom and leaving first when carburetor cock is opened. Failure of vacuum tank to draw supply of gasoline is sometimes caused by plug in top working loose. Plug should be inspected to make sure that it, and other fittings around the vacuum tank, are air tight.

Where it is believed the trouble is in the ignition system, first the battery should be checked up to make sure that it is not depleted. The magneto breaker point and the magneto collector brush should be checked up, as well as spark plugs. Spark plug trouble can either be located by disconnecting leads from the spark plugs one at a time, and touching to "ground" on engine with screw driver. If good spark is delivered by each loose contact, and if engine misses on one cylinder, it is quite certain that spark plug in that cylinder is either dirty, or defective. Wiring should be checked over for loose contact or broken wires. Loose contact, by vibration, may cause intermittent firing of engine.

Pounding in a gasoline engine may be caused by having spark advanced too far; incorrect carburetor adjustment, making too rich a mixture; carbon deposit in cylinders; engine overheated, due to lack of cooling water or proper lubrication; engine speed too slow on a hard pull; connecting rod bearings too loose (light knock at high speed or heavy pull); crank shaft bearing loose (heavy pound at low speed and under heavy loads); pistons in bushings worn; loose pistons; loose fly-wheel (noise usually transmitted to timing gears); too much play in valve push rods (light tapping sound).

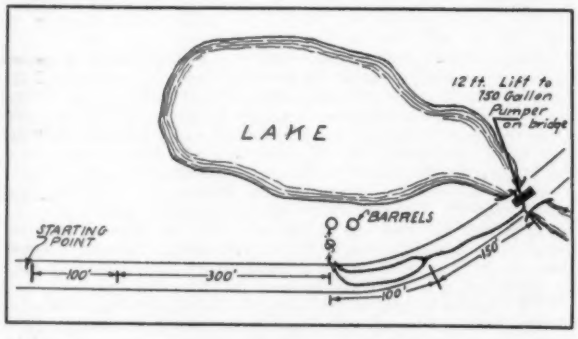
Fire Department Test Layout

With this article is reproduced a diagram of the layout used in the test described by Chief Frank R. Gisborne in the August 7 issue.

In this test all pumping is done through siamese, using 350 feet of hose. All engines are loaded with hose so that the male couplings came off first.

Apparatus must start from line four hundred feet from the barrels, illustrated, lay hose, connect suction hose at the source of water supply, pump water to barrels until the water issues from spouts in barrels. The hose layout is 150 feet from engine to siamese, two lines of 100 feet, each from siamese to nozzle. According to the rules the hose may be laid from the apparatus or by hand.

The time is taken from the time the engine crosses the line three hundred feet from the barrels, and until the water



Layout for Pumping Test.

issues from spouts in the barrels. All connections are to be wrench tight. Nozzlemen shall not stand less than fifty feet from the barrels. The apparatus must carry the full capacity of 2½-inch standard fire hose, fully coupled. A company with a 350-gallon pumper is to have a handicap of filling only one barrel using only one stream. The hose layout is to be the same as for all other companies.

These operations were performed in two minutes and 36 3-5 seconds.

Ex-Drillmaster of Denver Dead

Captain William J. Martin, forty-six years old, in charge of the Denver Fire Prevention Bureau, and formerly drillmaster of the department, died from a sudden heart attack while at a photographer's studio. An inhalator squad from the fire department worked on him for an hour in an effort to revive him.

He joined the department when he was twenty-one years old and his promotion was rapid. For several years he was drillmaster and he led squads of Denver firemen in exhibitions in cities of the Rocky Mountain region.

Captain Martin started many safety measures in Denver theatres and in public buildings. He was a member of the Denver Firemen's Association, the Colorado Firemen's Association, and the Elks. He is survived by his widow and a son, nineteen years old.

Bids for Schenectady Station too High—The second set of bids received for the construction of a fire house in Schenectady, N. Y., was considered $10,000 too high.

SPRINKLERS FAIL TO OPERATE AT NEBRASKA ELEVATOR FIRE

Definite Cause of Blaze Unknown—Difficulties Experienced by Men Due to Height of Fire—Public Water Supply Excellent

A SPRINKLERED elevator, the main section of which was eight stories high, located in Omaha, Neb., was destroyed by a fire recently of undetermined origin.

The bin portion of the elevator was seventy-five feet high. The bin walls and partitions were constructed of six-inch cribbing—the roof gable of composition material on one-inch board and joists.

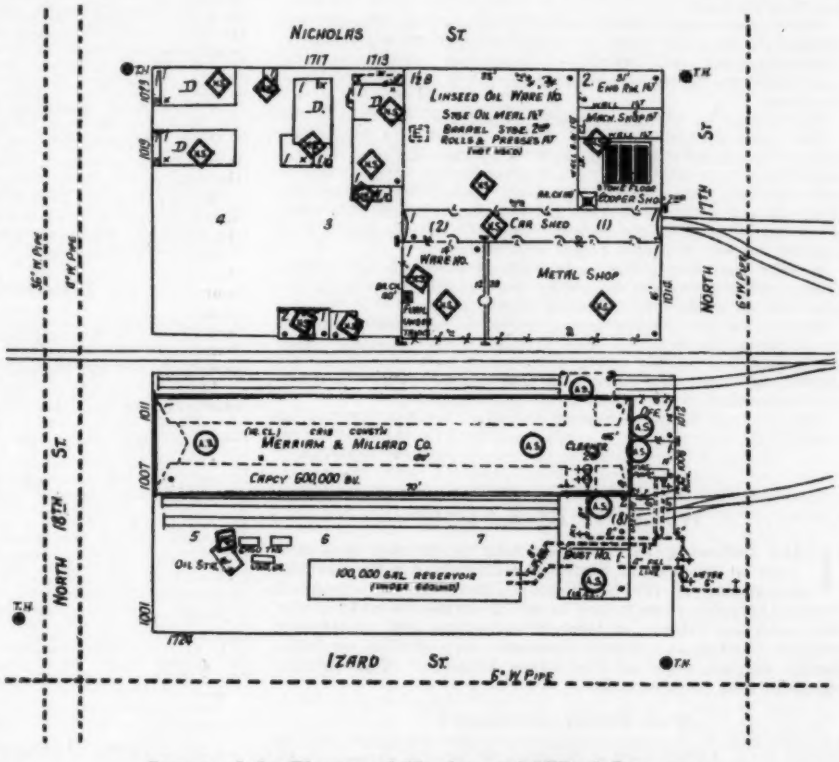
The building was protected by a watchman reporting to an A. D. T. central station from eight combination watch and fire alarm boxes. There was an automatic sprinkler system with an electric bell at each system riser on the first floor, and wired to a bell in the office. Private protection consisted of portable fire extinguishers and hose lines. Average pressure from the public water mains was 115 pounds.

Fire started on the top floor of the operating section of the elevator. It is generally believed that it started from either an electrical defect or an overheated bearing in one of the grain elevator leg heads. Nothing definite is known. Fire was first noted by the superintendent of the elevator who received a call in the office from an employee. He ran into the building to notify the workers there and sent a call to the fire department. Shortly after the blaze was discovered, the electrically operated pump, part of the sprinkler system, was started. The pump took suction from a 100,000-gallon concrete reservoir in the yard.

Chief Cogan arrived with the first units of the Omaha Fire Department. He immediately ordered a second alarm, and two minutes later a third alarm was sent in. A special call was made for the eighty-foot aerial ladder.

One hose line was strapped to the elevator lift and raised to the scale floor by an elevator employee. Seven firemen ascended by means of stairways and attempted to put this line into action. Before this line could be used, the men were forced to descend by falling timbers and the rapid spread of the blaze. In about thirty minutes, the upper floors and the roof structure were a mass of flames.

At one time there were twenty-one hose lines fighting the blaze. Due to the height of the fire, it was only possible to reach the flames by means of the water tower and aerial ladder. Luckily there was an absence of wind, and the firemen were able to confine the blaze to the elevator. Although the fire was reported out four hours after it had started, it was not completely extinguished until two days later.



Layout of the Elevator of Merriam and Millard Company

Grain Elevator Fire From West End of Building

The three alarms brought three ladder companies, four 1,000-gallon pumpers, four 300-gallon pumpers, three hose companies, a water tower, and an eighty-foot aerial ladder.

Before the fire, the elevator had been undergoing extensive repairs. Four small risers controlling two lines of sprinklers had been capped and the equipment supposedly placed back into service. The reservoir contained a sufficient supply of water. An inspection after the fire showed that the valves controlling the sprinkler supply were closed, and that both air clappers in the dry valves were on their seats.

The conclusions drawn after a thorough investigation were that no water passed through the dry valves and sprinkler equipment because the controlling valves were closed, and that during the time of construction, the sprinkler equipment should have been placed in the hands of competent sprinkler men.

The data in this article is taken from a report issued by the Nebraska Inspection Bureau.

Erie, Pa., to Erect a Drill Tower—Bids have been invited for the construction of a drill tower in Erie, Pa.

E. Liverpool Again Advertises for Bids—The amount set aside for the construction of a fire house in East Liverpool, Ohio, has been increased to $70,000, and the call for bids readvertised.

St. Paul Approves Plans for Safety Building—The council endorsed plans for a $480,000 public safety building to be erected in St. Paul, Minn. The building will house the fire and police departments, police and fire alarm systems, and fire apparatus.

Two General Alarms in Day at Atlanta

Within a period of twenty-four hours, Atlanta, Ga., experienced two general alarm fires that caused a total loss of $105,000.

Fire in a two-story brick warehouse of a wholesale produce firm is believed to have started from spontaneous combustion. The first alarm was received at 1:15 p. m. Chief Kennedy responded with three engine companies and an aerial ladder, and immediately turned in a second alarm. When the first company arrived, flames were issuing from all sides of the building, and there were large clouds of smoke. Fourteen streams were soon playing on the flames and the fire was brought under control in less than an hour.

The alarms brought three fire chiefs, seventy-three firemen, two 900-gallon Seagrave pumpers, three 750-gallon American-LaFrance pumpers, two 750-gallon Ahrens-Fox pumpers, one 75-foot American-LaFrance aerial ladder, and a Seagrave city service truck.

The damage by fire was estimated at $80,000.

The other fire destroyed the one-story brick and frame city delivery warehouse of the Georgia & Florida Railroad, erected sixty years ago as part of a cotton compress. It was ninety feet wide and two hundred feet long. Seventeen freight cars along the side of the shed were badly damaged before they could be moved by a switching engine. Valuable records stored in a separate, but non-fireproof room, were destroyed.

A truck and three engine companies answered the first alarm. Three engine companies answering the second alarm were delayed for six minutes by a passing freight train.

Chief Kennedy suffered severe burns on his hand from hot tar while trying to force open a door. First Assistant Chief Battle was overcome by smoke from which he recovered shortly afterwards. The same companies and number of men and officers responded to this fire as at the previous blaze.

The loss was $25,0.0, bringing the total loss for the day up to $105,000.

JOHN A. STULB.

WHAT'S BURNING

THE following list includes fires of $25,000 loss and over in the United States and Canada, for the periods designated in the headings. These figures, compiled from telegraphic reports, are based on estimates made at the time, and are subject to later investigation and consequent revision. Taken as a whole, however, they give an approximately correct view of the losses incurred. The figures represent loss in thousands.

Week Ending September 6

LYNDHURST, N. J.—Property owned by Carmine Luisi..... 25
GREEN BAY, WISC.—Plant of Barkhouse Oil Co..... 40
MILWAUKEE, WISC.—Plant of Cohen Bag & Burlap Co..... 65
BOUND BROOK, N. J.—J. Schulman store damaged..... 30
HIGHTSTOWN, N. J.—Plant of Schank & Field..... 25
TEWKSBURY, MASS.—Residence of Gen. Butler Ames..... 40
CLEMENTS, MINN.—Four business establishments..... 40
McCORMICK, S. C.—Bldg. at De La Howe School..... 40
ALLIANCE, NEBR.—The W. D. Rumer block damaged..... 30
NEWARK, N. Y.—Main bldg. Mathison Alkali Works..... 35
SYCAMORE, GA.—Whse. of Farmers' Gin Co..... 30

New York Crowds Have Chance to See Apartment House Fire

Visitors in Central Park, New York City, had an opportunity to watch a fire of undetermined origin that destroyed two seven-story apartment houses in West 110th street. About ninety-two families were driven to the street. The photograph shows the roofs of the burned buildings.

AUGUSTA, GA.—Georgia & Florida freight depot..... 25
WILLARD, OHIO—K. & R. garage, Motson St..... 25
FORT SMITH, ARK.—Plant of Mitchell Mfg. Co..... 200
HARVEY, ILL.—Ice house, Beck Coal & Lumber Co..... 30
MINEOLA, N. Y.—Nassau Hotel destroyed..... 25
MINNEAPOLIS, MINN.—Bldg. occupied by Lundeen Painting Co... 25
DUNDEE, MINN.—Farmers Cooperative grain elevator..... 30
WAYLAND, MASS.—Unitarian Church damaged..... 25
HOOD RIVER, ORE.—Engine house Mt. Hood R. R., adj. bldgs... 80
CENTERVILLE, DEL.—Farm property of J. S. Dean..... 25
STREATOR, ILL.—Plant of Kennedy Mfg. Co..... 65
OTTAWA, ILL.—Geo. Schultz garage destroyed..... 40
STANLEY, N. DAK.—Farmers elevator destroyed..... 25
OCEAN CITY, MD.—Fifteen boardwalk concessions 200
NEW LONDON, CONN.—Cruiser "Trebar" of L. D. Cleveland..... 30
GOODENE, SASK.—General store and adj. property..... 40
GLENWOOD, IA.—Marshall building damaged..... 45
LEOMINSTER, MASS.—Factory of Standard Pyroxoid Corp..... 25
WARTRACE, TENN.—W. T. Cunningham property, adj. bldgs..... 150
KINGSTON, ONT.—Sydenham military hospital..... 150
OAKDALE, L. I., N. Y.—Theatre of Idle Hour Corp..... 200
BROOKLYN, N. Y.—Keeper lumber yard, adj. loft bldg..... 150
BRENT, ALA.—Whse. of Peoples Whse. & Storage Co..... 25
WALDO, B. C.—Plant of Baker Lumber Co., adj. property..... 150
PAWTUCKET, R. I.—Lumber yard of Atwood-Crawford Co..... 65
CHICAGO, ILL.—Kilns of O'Brien Lumber Co., S. Damen Ave..... 150
MILTON, ORE.—Sawmill of Milton Box Co..... 25
PALATKA, FLA.—Whse. of Zorn Transfer Co..... 150
BALTIMORE, MD.—Tank of Standard Oil Co..... 40
WARRENSBURG, N. Y.—Warren Inn destroyed 40
FORT SMITH, ARK.—Main bldg. of Yaffee Iron & Metal Co..... 25
BRECKENRIDGE, TEX.—Four business establishments..... 40
TOTTENVILLE, N. Y.—Staten Island Station Rapid Transit Co..... 200
LOS ANGELES, CALIF.—Station of General Petroleum Corp..... 80
AKRON, IND.—Saw mill, D. A. Pike 25

Week Ending September 13

LOS ANGELES, CAL.—Laundry garage and delivery trucks..... 25
CASTLEWOOD, MO.—Castlewood Hotel on Meramec River..... 30
WHEELEN SPRINGS, ARK.—Store of D. W. Mells, adj. property 25
NORTH ATTLEBORO, MASS.—Icehouse of Risoux Ice Co..... 50
ARMSTRONG CREEK, WIS.—Store and whse. of S. A. Sinkula... 400
BARKER, N. Y.—Plant of Somerset Packing Corp..... 40
DETROIT, MICH.—Farm bldgs. of Sheriff Ira Wilson..... 40
SAN FRANCISCO, CALIF.—Business block, 5th & Berry Sts..... 160
TILDEN, WISC.—Farm bldgs. of Mike Dachel..... 25
LORAIN, OHIO.—Pearl St. business district damaged..... 200
LISTOWEL, ONT.—Business and apt. buildings..... 40
WICHITA, KAN.—Fairmount Hall, Municipal University..... 125
SELAH, WASH.—Plant of Evaporated Fruits, Inc..... 150
GLENDALE, OREG.—Lystul-Lawson Lumber mill destroyed..... 100
AUBURN, ME.—Property at Court & Knight Sts..... 25
KALAMA, WASH.—Barr shingle mill property..... 50
NASHVILLE, TENN.—Garage of J. D. Gentry..... 25
LAKEVIEW, ORE.—Bldg. of Lakeview Mfg. Co..... 25
LEXINGTON, KY.—Property of Munich & Co..... 25
SKIDMORE, TEX.—Store of Far Mercantile Co..... 25
NEENAH, WIS.—W. Wisconsin business property..... 65
ROCKWELL CITY, IA.—Plant of Rockwell City Canning Co..... 150
CHANA, ILL.—Chana Grain & Lumber Co. plant..... 25
GREEN BAY, WISC.—Becher Bros. store destroyed..... 80
HIGHLAND CITY, FLA.—District school bldg..... 25
FALL RIVER, MASS.—Ice houses owned by D. Ouellette..... 25

New Jersey Chiefs to Meet

The annual meeting of the New Jersey State Fire Chiefs' Association will be held at Atlantic City, Sept. 20. The meeting will be held at 8:00 p. m. in Room 12 of the Municipal Auditorium. At this meeting will be presented the annual reports of officers and committee chairmen. New officers will be elected.

Chief Olson of Red Wing Dead

August P. Olson, head of the fire department of Red Wing, Minn., for the past four years, died at a hospital in Rochester following an operation to relieve kidney trouble. Shortly after the operation it was believed that he was on the road to recovery, but uranic poisoning set in, and for several days it was known that death was inevitable.

He was born in the city August 24, 1867. For many years he was employed in a local furniture factory, and in 1889 he became a member of the volunteer department. He continued this association. When the late Charles J. Wiech was chief in 1903, Mr. Olson was assistant and he also held this office under the late Hart N. Cook. When the paid department was organized in 1906, he continued as assistant chief and he held that office until December 1, 1925. At that time Mr. Olson was appointed head of the department to succeed John A. Gross.

Chief Olson was a member of the Royal Arcanum, the Elks and Yeomen lodges. He is survived by his widow, a son, a daughter, and a sister.

He served the local fire department for forty years.

Peekskill, N, Y., to Buy Apparatus—Peekskill, N. Y., is considering the purchase of fire apparatus.

The Round Table

(*Continued from page 810*)

F. B. Fennerstein, Chief, Saint Charles, Mo.: Yes, I do consider over-insurance an incentive for incendiary fires. I would suggest as a preventative that insurance companies be very careful of the agencies they have to sell insurance. Many of these agents consider only the commission they receive for writing certain amounts of insurance and will, in some cases, insure property regardless of the risk there is attached to it. This applies especially to stocks and merchandise.

Chas. E. McIlhargey, Chief, Hibbing, Minn.: After thirty-seven years of fire fighting, twenty years of which I have been chief, I have come to the conclusion that over-insurance is directly or indirectly responsible for a large percentage of the loss by fire throughout the United States each year. By indirectly I mean the person who is so well insured that he has nothing to lose by a fire. He therefore becomes careless which often results in fire. By directly I mean the person who over-insures property with the direct intention of selling out to the insurance company at the proper time.

The loss at these fires is always largely due to the fact that arrangements have been made for the fire to start in a way and place that will not be seen or reported until it is well under way. This is done to destroy any evidence of arson. The chief, while knowing the fire to be incendiary, is compelled to report "cause unknown."

As a remedy I would suggest that insurance companies limit the number of agencies in each district or for a certain population. I believe it would be better for agents to work on a salary basis. There should be state or district examiners to check up on property or materials insured. Property insured for over eighty per cent of its true value should be considered a crime and punishable by fine or prison. I believe state laws should govern insurance in order to protect life and property from fire.

Samuel De Wees, Chief, Hempstead, N. Y.: It is my opinion that incendiary fires are usually due to over-insurance. While it is difficult to say just what steps can be taken to remedy this situation I do believe that a thorough investigation of property or material to be insured should be made before the policy is issued. This would do away with placing an amount of insurance that is in excess of the actual value.

Fred. W. Roberts, Chief, Portland, Ore.: Over-insurance is responsible for nine out of every ten incendiary fires that occur. Insurance companies should be required to pay all insurance in force at the time of this fire, and after the actual values are ascertained and claims settled, surplus moneys should be paid to the city fire department fund or to the state department having jurisdiction. When it is proven that agents have over-insured property, officers having jurisdiction should prosecute them and the insurance company should withdraw the agency. I also believe that taxes should be levied on property in proportion to values as shown by amount of insurance carried.

R. H. Bowker, Chief, Passaic, N. J.: Yes, I positively believe over-insurance is the cause of incendiary fires. In 1928 a delicatessen store insured its stock for forty thousand dollars, whereas after investory was taken the actual value was forty-five hundred dollars. Very recently an old abandoned barn partially destroyed by boys was set on fire. The insurance on this building was a thousand dollars while owing to the condition it was in it was not worth more than fifty dollars. Space will not permit relating all the instances of this kind that I have come across in my experience.

In my opinion to prevent such incendiary and any other kind of fires, insurance companies should make careful investigations and where it is found that property is over-insured, the policies should be cancelled at once. I think this method would prevent many incendiary fires and perhaps prevent many conflagrations.

S. Ferguson, Chief, Fort Worth, Texas: I absolutely believe that over-insurance is one of the real causes of incendiary fires. A rigid investigation should be made not only of the property to be insured but of the person desiring the insurance. Such investigations should be carried on by competent persons who will not over estimate the value of property. The amount of insurance should not be regulated by the amount of mortgage on the property. I also believe that local agents should be paid a salary rather than a commission.

Geo. Aitchson, Chief, Miles City, Mont.: I do consider that over-insurance is one of the real causes of incendiary fires. My solution for this is that the local agent or contractor set a value on the building and the Board of Fire Underwriters cooperate by having someone set a value on the contents of the building. These values could be used to estimate the amount of insurance to be placed.

Henry J. Schulz, Chief, Ashland, Ohio: In our city I do not consider over-insurance the real cause of incendiary fires. I cannot recall any fire which was due to over-insurance. In rural districts there are causes for such cases. To remedy this it is very necessary for insurance agents to know how much encumbrance the owner has on the property. Fires often happen where property is very heavily encumbered. There are some insurance companies that are cancelling insurance on rural property around here at present.

Robt. H. Morlock, Chief, Hillsdale, Mich.: There is no question in my mind but that over-insurance is the cause of ninety per cent of all incendiary fires. If before a policy is issued a close investigation was made and only seventy-five per cent of the actual value was written on same, in my opinion fifty per cent of the losses by fire would be avoided.

Clive K. Dall, Chief, Delaware, Ohio: Yes, I do believe over-insurance is the real cause of incendiary fires. It gives us a lot of trouble in ferreting out the causes of quite a few fires. I would suggest an honest and fair appraisal of property to be insured. A penalty should be placed on any agent who will sell more insurance than the property or merchandise calls for. Insurance companies should also keep track of the amount of insurance that has been placed with other insurance companies and then keep the total within the appraisal.

C. W. Carliss, Chief, Lagrange, Ga.: I believe over-insurance is wholly responsible for incendiary fires. I make every effort to keep business from agents whom I think are granting policies in excess of the value of property and try to see that it is placed with agents who do not over-insure property. I can say, however, that our insurance agents deserve credit for the light fire losses we have had for the past fifteen years.

Otto Hackbarth, Chief, Marinette, Wis.: Insuring to the full coverage or over-insuring is a danger sign in the line of fire. One may make several suggestions to remedy the same but to carry them out would be a difficult task. I have had but one experience of this nature in our city and this was a number of years ago. In this instance it appeared that the local agency was as guilty as the insured. Nevertheless, the claim was never paid which to my mind is one good remedy.

Wm. Briggs, Chief, Shelbyville, Ind.: Insurance companies should only have agents who are competent judges of the value of the property which they insure and also the value of merchandise or household materials being insured. In many cases over-insurance makes people careless and this results in fires. I believe it would be a much better thing if agents did not work on a commission basis.

On the Way to Municipal Electricians' Convention

Above is a group of southwestern delegates standing in front of the Washington monument. They stopped off at Washington, D. C., while on the way to the convention of the International Association of Municipal Electricians held recently in Boston. Arranged in front of the monument are left to right, E. A. Brass, superintendent of fire alarm, Shreveport, La.; Mrs. E. A. Brass; C. F. Maulen, district sales manager, Gamewell Company, Dallas, Tex.; Mrs. C. F. Maulen; John A. Luckie, superintendent of fire alarm, Houston, Tex.; George Henderson, superintendent of fire alarm, Fort Worth, Tex.

H. Zeller, Chief, Sayre, Pa.: In a number of cases over-insurance is the cause of many fires of a suspicious nature. I feel the remedy to this situation depends upon the insurance agents in writing insurance. It is up to them to see that property and merchandise is not over-insured. This, I believe, would reduce the number of incendiary fires.

J. R. Eldridge, Chief, Johnson City, N. Y.: My contention is that if no insurance could be purchased this would reduce our fire loss seventy-five per cent. However, as we do have insurance, I think policies should not exceed eighty per cent of the actual value of the property or stock to be insured and that this value be checked at least once a year.

Chas. P. Loller, Chief, Hamden, Conn.: Yes, I believe over-insurance is the cause of incendiary fires. I believe to remedy the situation the insurance should be cut down the same as was done in New Haven.

John J. Shea, Chief, Hoosick Falls, N. Y.:. In many instances where there has been a fire of a suspicious nature, the chief is asked by the adjustor how the fire started and whether or not he has checked over the stock. I do not believe it is up to the chief to look over a firm's stock. If they are insured for a large sum of money and the insurance company took the word of the person desiring the insurance as to the value, no one is to blame but the company. I believe if the insurance companies and the chief of fire department would get together and discuss this situation something could be accomplished in the way of a solution.

W. E. DeBolt, Chief, Connellsville, Pa.: Yes, I believe ninety per cent of the incendiary fires are due to over-insurance. If agents would be honest in insuring property and not be so concerned about the amount of commission they are to get, there would be less cases of over-insurance. There was one case here where property value of about $475 was insured for $1,500.

Finley Durea, Chief, Wellston, Ohio: Yes, I believe that over-insurance is the real cause of incendiary fires. Agents should make a thorough investigation before insuring any property or merchandise. They should also take into consideration the industrial condition of the particular town in question.

F. J. Myers, Chief, Toledo, Ohio: I believe in some cases over-insurance is the cause of incendiary fires. To eliminate this hazard I would suggest that the insurance agent make a thorough investigation before writing the policy. Stocks should be gone over very carefully before they are insured. However, this is a difficult problem to contend with due to the fact that the larger amount of insurance an agent secures the more commission he receives.

H. E. Voshell, Chief, Indianapolis, Ind.: Yes, I do believe that over-insurance is one of the real causes of incendiary fires. I would recommend that all insured stock be appraised or an inventory taken of the stock. This would eliminate putting an excess value on policies.

Some Fires Are Not As Bad As They Appear

A blaze in a grease chute in the Hotel Sherman, gave the passerby the impression that the entire famous Loop district of Chicago was on fire. The fire was extinguished before it had a chance to do much damage.

Jos. A. Roberts, Chief, Tucson, Ariz.: I am of the opinion that if more rigid regulations governing agents in accepting insurance would eliminate to a great extent the hazard of over-insurance.

R. E. Pitts, Chief, Tulsa, Okla.: Yes, I do believe that over-insurance contributes toward causing incendiary fires. An appraisal should be made of all property before writing a policy. I am of the opinion that policies should have the full value clause. We have a class of citizens here who are inclined to overlook the 80% clause.

John L. Miller, Chief, Concord, N. Car.: Yes, I am of the opinion that over-insurance is one of the real causes of incendiary fires. Local agents should be made to refuse to over-insure property. I am convinced that agents are the real cause to a certain extent for incendiary fires as they are the ones who take the insurance. I, therefore, believe that they should be checked up on as it is a known fact that the greater the risk, the greater the amount of the premium, and as part of the premium goes to the agents, they often over-insure property as it is not up to them to pay the loss when a fire takes place.

C. E. Swanson, Chief, Everett, Wash.: I consider over-insurance the major cause of all incendiary fires. As a remedy I would suggest that legislation be enacted that would make it unlawful for agents to over-write risks.

Oscar Hiestand, Chief, Casper, Wyo.: Yes, I do believe that over-insurance is one of the real causes of incendiary fires. As a remedy a competent inspector should pass on every policy written.

Philip Reilly, Chief, New Albany, Ind.: Over-insurance is the cause of incendiary fires. I believe if commissions were eliminated and agents or representatives were placed on a salary basis this would help to remedy this situation.

Fred. Lambert, Chief, Oshkosh, Wis.: Yes, I believe that over-insurance is one of the real causes of incendiary fires. As a remedy I would suggest some kind of a board of disinterested citizens to work with the chief and fire prevention board where the hazard is bad. The insurance should be stopped in such causes until the hazard is cleaned up.

R. W. Cameron, Chief, Eureka, Cal.: I certainly do consider over-insurance one of the greatest causes of incendiary fires. I would suggest that the insurance companies be made to pay the full amount of the policy. This would cause them to be more careful in over-insuring property.

Wm. Rumley, Chief, Washington, N. Car.: In our town, I do not consider over-insurance the cause of incendiary fires as we have practically no such type of fire.

J. E. Bayer, Chief, Greenville, Ohio: Yes, I do consider over-insurance the cause of incendiary fires. As a remedy I would suggest that insurance companies be more careful in the agents they appoint to sell insurance. If, when writing a policy the agent thinks the person is over estimating the value he should check up on the amount of taxes paid and insure accordingly. I think this would help to eliminate over-insuring.

M. Vincent S. Fritz, Chief, Victoria, Tex.: Yes, I do consider incendiary fires are caused by over-insuring property or merchandise. Agents should be compelled to file a copy of every policy with the city fire marshal or some other properly constituted city authority.

Jos. C. Hollingsworth, Chief, Sulphur Springs, Tex.: Yes, I do believe that over-insurance is one of the real causes of incendiary fires. Insurance agents should make closer inspections and reduce the amount of insurance.

Frank Jennings, Chief, Ardmore, Okla.: Incendiary fires are certainly a result of over-insurance. Insurance agents should make a thorough investigation before writing any policy.

Thomas Goettler, Chief, Secaucus, N. J.: Thorough investigations should be made of all property and merchandise in order to prevent over-insurance which is certainly a hazard.

Frank Dickinson, Chief, Brockton, Mass.: Yes, I do consider over-insurance the cause of incendiary fires. Agents should investigate property in order to secure the true value of same before placing insurance.

E. L. Rhoades, Chief, Kearney, Nebr.: Yes, I do consider over-insurance a real cause of incendiary fires. Insurance companies should make thorough investigations before insuring property.

James J. Corbett, Chief, Watervliet, N. Y.: Over-insurance is one of the real causes of incendiary fires especially

among the certain classes. These people all seem to have their property over-insured. I believe that if the insurance company would hold up the settlement on claims where the fire is of a suspicious nature, it would go a long way toward eliminating many incendiary fires.

Daniel F. Donovan, Chief, Kansas City, Mo.: I certainly consider that over-insurance tends to act as an incentive to those considering arson. Policies should be cancelled or reduced. This would eliminate to a great extent the problem of over-insurance.

O. J. Petty, Chief, Bowling Green, Ohio: In answer to your question I would say that I do believe over-insurance to be a real cause of incendiary fires. Insurance agents should check carefully the property or merchandise he is insuring. There is often a tendency to be careless along this line.

J. C. Taylor, Chief, Kannapolis, N. Car.: I do consider over-insurance promotes arson. Policies should be based upon the amount of taxes the person pays.

A. Schmidt, Chief, Rock Island, Ill.: No, I do not consider over-insurance the cause of incendiary fires.

Answers to Previous Questions

Frank C. Williamson, Deputy Chief, Floral Park, L. I.: In my experience I have found that salvage work is a very good thing. Men doing salvage work go over the entire building to protect property as much as possible from fire and water damage. In this way people who are not covered by insurance are given protection. If the property is covered by insurance the loss to the insurance company is not as great. Another duty of the salvage corps, which is certainly worth while, is to rescue those who may be found overcome by smoke. This in itself speaks for the good of salvage work.

R. E. Wilson, Chief, Alpeena, Mich.: We do very little fire fighting outside of the city for the reason that our principal farming district, owing to the immense limestone deposits surrounding us, lies about ten miles out. By the time an alarm reaches us it would be too late to be of any assistance. We do send a pumper with driver and one man in case a call is received within reaching distance. Where a conflagration is raging in one of the surrounding towns, we do the same thing. No charge is made for our work as we try to assist our neighbors in every way possible without leaving our own city in danger in the event of a bad fire breaking out.

We have no rural fire truck here for which I am very glad. In most communities I have visited, I find the fire department undermanned and it does not look like good business to me to make a run of five or ten miles to fight a farm fire involving two to five thousand dollars, leaving hundreds of thousands of dollars worth of property within the city unprotected. I do believe that a community fire truck is an excellent thing for any place unless manned by two or three men who know their business, and are paid by the rural district served. Frequently we hear of conflagrations breaking out with large losses resulting because the entire fire apparatus is busy fighting at some minor fire out in the country. Fire is no respector of persons and no man can tell when a dangerous conflagration will break out. Every dollar spent for fire protection is returned multiplied many times to every taxpayer in the community.

Sometimes for long periods no fire of any consequence occurs and we often hear some taxpayers complaining of the expense of maintaining an adequate fire department. However, they do not take into consideration the property and lives that are saved by adequate preparation and do not seem to realize that every incipient blaze put out by the trained fire fighter might have been the making of a conflagration, costing immense sums of money and endangering a number of lives.

Frank Feirer, Chief, Roselle Park, N. J.: This department answers calls from neighboring towns, such as Roselle, Union and Kenilworth, if they call on us. No charge is made for services given.

Chas. Lynn, Chief, New Castle, Pa.: We answer calls from rural and neighboring communities provided in responding we can travel on hard surfaced roads and the water supply is sufficient to operate a pump. No set charge is made for service given. If those asking for help feel inclined to reimburse the city they can do so.

J. L. McClure, Chief, Wichita Falls, Tex.: Our fire hydrants are painted red. All of the hydrants are in good condition and plenty of water can be obtained from them at all times.

Old Hotels—And Heavy Casualties

(*Continued from page* 808)

In this case the department will have to depend almost entirely upon the use of ladders and life nets.

Additional personnel and ladder equipment is most essential at fires of this type, particularly where the fires occur at night. For that reason the officer in command, upon arriving at the fire, should immediately summon additional apparatus so that the fire-fighting force will not be handicapped in performing rescue work. Those on the uppers should be given first consideration, which means that the longer ladders will be raised first. Members of engine companies, or bystanders, may be impressed into service to hold life nets in order to rescue any who may be at the point of jumping or who may be forced to jump by the approaching fire.

In connection with rescue work, the department must under no conditions assume that everybody is out of the different rooms until inspection by members of the department shows such to be the case. For this reason before ladder is moved from a location at a window, member of the department should immediately proceed through the room to make sure that no one remains.

In performing rescue work at hotel buildings the back

The Frame Hotel Burns Like Tinder.

Fanned by a strong wind, fire swept through this hotel, located at Blue Point, Long Island, and although only twenty-five persons were in the building at the time, a number of them had to jump to safety.

of the building as well as the front and sides must be considered. There are nearly always inside rooms which do not open out to street front. Entrance to such rooms can usually be secured from alley or court at rear of building. Occasionally the roofs of adjoining buildings can be utilized, as well as upper floors of such buildings, in effecting rescue of persons across light courts or alleys. It is usually quite difficult to get long ladders in position at rear of buildings due to obstructions such as high board fences, poles, etc. For this reason it is necessary to give as prompt attention to the rear of the building as to the front and sides.

After it is reasonably certain that all persons were out of the structure, then the operations of fighting the fire may be pursued with full force. In this connection it should again be pointed out that the insecure construction employed in the old type brick hotel as well as in the frame hotel make it exceedingly dangerous for men to operate in on lower floors where fire has been burning on upper floors for some time. The liklihood of collapse of floors is always imminent and this point should be remembered by the officer in command, who is responsible for the lives of his men. Furthermore, the

great quantities of combustible material which enter into the construction and equipment of such a building mean that there will be a very hot fire and streams of large caliber will be required to bring the burning materials down to a temperature below their re-ignition point. But to use large streams effectively it will be necessary to enter the building at such a point the stream can be directed through hallways, rather than into individual rooms. Little good can be done by directing heavy streams into small rooms where the greater part of the water will remain in the room and not penetrate through the hall at which point the fire is burning with greatest intensity.

Occasionally the location of red exit lights can be noted from the outside and they will be found in line with fire escapes. Thus the operation of the department will be largely confined to fire escapes if the fire has involved the buildings.

After the fire burning in the halls has been brought under control, it is then possible for men to enter through rooms joining halls and operate at close range. In all cases thorough ventilation is most essential, and, in addition to opening the roof as described previously, windows must be opened top and bottom to maintain an atmosphere in which members of the department can remain without danger of being overcome.

Stover Special for Birmingham

Frank F. Stover, Chicago district sales manager for the Gamewell Company, has arranged for a special train to take chiefs from Chicago and vicinity to the International Association of Fire Chiefs' convention at Birmingham. The train will leave Chicago 2 p. m., Monday, October 21, and stops will be made at Danville, Terre Haute, Vincennes, and Evansville. The round trip convention rate fare is $35.58, berth extra.

In purchasing a ticket, the ticket agent should be asked for a certificate. He should be instructed to route you beyond Chicago via Chicago and Eastern Illinois Railway to Evansville, and from there by way of Louisville and Nashville Railroad to Birmingham.

Hotel reservations should be made direct.

S. E. Chiefs to Meet in Birmingham

The Southeastern Association of Fire Chiefs will meet in Birmingham, Ala., October 21, one day prior to the opening of the annual meeting of the International Association of Fire Chiefs. This plan will make it possible to attend two conventions without any additional travel cost.

A special train termed the "Southern Regulars Special Train," will leave Atlanta at noon, Sunday, October 20, and will arrive in Birmingham at five o'clock the same afternoon. P. O. Hebert, Atlanta, Ga., will make train and hotel reservations for those who would like to travel on this train.

Three Airplanes Destroyed by Welding Torch Flame

A factory just outside of Sharon, Pa., containing three airplanes was destroyed by fire. The fuselage of a plane was ignited by an acetylene torch. During the course of the fire, two tanks of gas used for welding exploded.

Things Dull—Firemen Provide Thrills

Eight members of the fire department of Glen Cove, N. Y., are charged with second and third degree arson, as a result of an investigation by local police assisted by insurance detectives in reference to the many suspicious fires. For more than five years the city has been troubled with fires of mysterious origin. Twice in eight months the municipal bathing pavilion was destroyed. Recently an attempt was made to fire a school building.

The truth was learned after firemen celebrated the winning of a cup at the Hicksville, L. I., fire tournament. One of the fire-fighters returning with the prize became unusually talkative and, as a result, the eight men were rounded up. They are charged with setting fire to buildings to provide excitement when events became too dull.

Other Long Island communities were faced with the same condition. Similar charges were made against volunteer firemen at Freeport, Rockville Center, Great Neck, Manhassett, Port Washington, and other places.

The men are out on bail of $5,000 each. The maximum penalty for second degree arson is twenty-five years and fifteen years for third degree arson.

Fire Waste Council to Meet

The program for the semi-annual meeting of the National Fire Waste Council to be held at the headquarters of the Chamber of Commerce of the United States in Washington, October 1, was announced today by the Chamber's Insurance Department. Four papers of special interest to those engaged in fire prevention activities will be presented. In addition, the Council will hear reports of the standing committees and a special report on the fire prevention course given this summer at the National Institute for Commercial and Trade Organization Executives.

"Equipment and Personnel of Municipal Fire Departments in Relation to Population" will be presented by George W. Booth, chief engineer of the National Board of Fire Underwriters, New York. J. E. Martin, chief engineer of the Insurance Department of the U. S. Steel Corporation, will speak on "What Fire Prevention Means to Industry." Sherwood Brockwell, fire marshal of North Carolina, will address the Council on "The Fire Department Goes to School." The fourth paper will be presented by Morton L. Wallerstein, executive secretary of the League of Virginia Municipalities. The American Municipal Association, of which the Virginia League is an organization member, recently became affiliated with the National Fire Waste Council. Mr. Wallerstein will discuss the fire prevention activities of state leagues of municipalities and point out how team work between them and national fire prevention organizations should assist in reducing fire waste.

On September 30, the day preceding the Council meeting, a number of Council committees will meet. Those which have definitely scheduled meetings are the Executive Committee, Contest Committee, Contest Grading Committee, Fire Casualty Statistics Committee, Information and Publications Committee, Manufacturers' Committee and Speakers' Committee.

Highland Park Improves Fire Service

Many improvements are in the process of construction so as to develop the fire protection features of Highland Park, Ill.

A new bungalow fire station to be known as Station 2 is now being constructed and will be completed this fall. It will be a two-story brick veneer building with accommodations for two pieces of apparatus. Four paid firemen will be added to man this new house, and a 750-gallon pumper is to be purchased.

The water service is also being improved. A 500,000-gallon elevated tank is being erected in the business district and will be connected with the new pumping station now being erected, by a 16-inch main.

Croton, N. Y., May Have Fire Alarm System—An election was held in Croton, N. Y., to consider a $12,000 bond issue to finance the installation of a fire alarm system.

Fire House at Arverne, L. I., Completed—The new fire house at Beach 58th street and Rockaway Beach Boulevard, Arverne, L. I., N. Y., has been completed.

Sioux City, Ia., to Erect Fire House—A brick fire station to house a truck company and an engine company will be erected in Sioux City, Ia., at a cost of $40,000.

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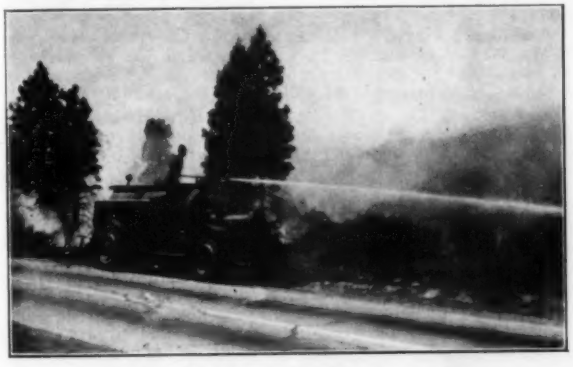
Forest Service Has New Apparatus

Rapid enlargement of the newest and most highly effective branch of the state Forest Service, the fire engine brigade, was indicated recently when A. R. Heron, California State director of finance, gave virtual assurance that eight of the big speed fire trucks will soon be on the fire lines.

Capable of a speed of forty-five miles an hour in getting to a fire, equipped with motor driven pumps, four lines of



Effective Way to Extinguish Brush Fires

hose, field equipment and carrying 275 gallons of water each, four of the forest fire engines are now in service.

Four additional fire-fighting trucks, originally scheduled for building next year, will probably be constructed at once, Heron announced, due to their established effectiveness in suppressing fires and the hazardous conditions that obtain this year.

State Forester M. B. Pratt, announced that the four fire trucks which have gone on duty during the last two months are stationed at Riverside, Ukiah, Auburn and Bakersfield.

C. W. GEIGER.

"Legal" Use of Fire Equipment

(*Continued from page* 812)

always is admissible as circumstantial evidence for the purpose of convicting the perpetrator of the crime.

For illustration, in State vs. Henderson, 122 So. 591, it was disclosed that a person, who was convicted of arson, appealed to the higher Court contending that certain evidence was improperly admitted during the trial.

In this case, it was proved that the day preceeding the night of the fire the owner of the burned property had arrested the person charged with the crime. His conviction resulted primarily from the effect on the jury of testimony of this arrest. The higher Court upheld the verdict, saying:

"The evidence in the case was wholly circumstantial. . . . In cases of circumstantial evidence motive is a circumstance bearing on the identity of the accused as the perpetrator of the crime, and evidence tending to show motive on his part is relevant and admissible."

Photographs as Evidence in Proving Arson

Another important phase of the law relating to arson was decided in the recent case of State vs. Katz (146 Atl. 351).

Here it was disclosed that the owner of property was convicted of arson primarily upon the evidence of a photograph which was exposed of the interior of the building after the fire. The owner objected to use of the photograph on the grounds that several changes were made in the interior and various pieces of furniture were moved before the picture was made.

However, the higher Court upheld the lower Court's verdict, saying:

"The photograph was properly received. Such slight changes in the conditions at the time of the fire from those existing at the time the photograph was taken were not such as to prejudice the defendant . . . and did not make the photograph inadmissible."

The Law of Contracts

It is well settled that a citizen may recover damages and full anticipated profits from a municipality which breaches a contract relating to the fire department or its equipment. Moreover, if the citizen breaches the contract the city may refuse to pay the former the money due for the work performed, or the merchandise supplied, and the city may sue and recover any damages sustained as a result of the citizen's breach.

However, if both the citizen and the city decide to breach a contract, the citizen may recover only a reasonable amount for work or equipment he has actually supplied.

For illustration, in Lozano vs. Thos. W. Blake Company, 16 S. W. (2d) 983, it was disclosed that after a small part of the contracted work was completed both parties agreed to abandon the contract. Suit developed over payment for the work completed, and the Court held the citizen liable only for the actual value of the work performed, saying:

"His (citizen) cause of action was therefore upon the quantum meruit, under which his right to recover the amounts expended by him is restricted to such sums as were reasonable in amount, necessary to the undertaking, and to be charged therewith."

CORRESPONDENCE

Cleveland Hospital Disaster

To the Editor:

I have read with a great deal of interest the article published in your Question and Answer column of the July 10, 1929 issue pertaining to gases generated in the Cleveland Clinic disaster. It is indeed a question which should interest every progressive firemen, for one of the fundamentals of fire-fighting is coping with gases generated by the decomposition and combustion of materials.

It would be proper at this time to recall an experience of some twenty years ago in Milwaukee, Wis., where a chief and a number of firemen worked in an atmosphere of nitric acid while overhauling at a fire. When they were finished with their work, they returned to quarters apparently none the worse for the experience. However, all died within a period of from three hours to one week, and the facts were very similar to the experiences of the Cleveland victims.

It is my understanding that film stock is a material in which the elementary body possesses all the elements which make and support complete combustion. For this and many other well founded reasons, I am not prone to believe that there was any presence of carbon monoxide gas in the Cleveland incident.

According to reports, only fifteen minutes elapsed from the time the fire occurred to the moment of explosion. This seems a very short period to produce a gas which should be generated from a slow process of combustion, and in sufficient volume to cause explosion or ill effects to the human body. In my twenty years of fire service, I have yet to witness such a case and I believe that all experienced in fire-fighting will agree that the statements described in the report are inconsistent.

My theory is that the fire started in one of the compartments where the films were stored and was caused by a carelessly dropped and unnoticed spark. The heat of combustion in the closed compartment quickly decomposed films in the adjacent compartments, and from this issued large volumes of decomposed gases: nitrogen tetroxide, hydrogen and others. Hydrogen is highly explosive and from eleven to sixteen times lighter than air (atomic weight). It would ascend to the highest point which in all probability would be the light shaft, and as this space became filled, the gas would work downward and come in contact with an open

(*Continued on page* 829)

American Fire Apparatus to be Exhibited in Spain

Two American-LaFrance triple combination pumpers before being placed in service at Bilboa, Spain, will be exhibited at the International Exposition at Barcelona, Spain, during October. The units will be the only American made fire apparatus at the exposition. The apparatus was purchased for the city by N. de Zubigaray, industrial engineers. From left to right are Larry LaVelle, Senor Antonio Zubigaray, Bilboa, Spain, and H. A. LaTour. LaVelle and LaTour are with the American-LaFrance.

FIRE DEPARTMENT ACTIVITIES

Redwood City, Cal., to Buy Apparatus—Redwood City, Cal., will purchase a new ladder service truck at an early date.

Ft. Dodge, Ia., to Buy Apparatus—Purchase of an Ahrens-Fox pumper for Fort Dodge, Ia., has been approved.

Santa Monica, Cal., May Buy Apparatus—A pumper and an aerial truck may be purchased by Santa Monica, Cal.

Croton, N. Y., to Have New Fire Alarm—Croton, N. Y., has voted to install a new fire alarm system for $12,000.

Toledo to Have New Fire House—A two story brick fire station to cost $50,000, will be erected in Toledo, Ohio.

Abbottstown, Pa., Buys Apparatus—Abbottstown, Pa., has purchased a Hale pumper mounted on a Ford chassis.

Haledon, N. J., Working on Fire House—Volunteer firemen of Haledon, N. J., are helping to erect a new fire house.

Pumper Delivered to Cedar Rapids, Ia.—A 1,000-gallon pumper has been delivered to Cedar Rapids, Ia.

Denver to Raze Fire House—The historic fire station of Denver, Col., erected in 1884 will be razed.

Proctorville, Ohio, Will Buy Fire Apparatus—Proctorville, Ohio, voted to buy a pumper for $3,750.

Lynbrook Plans for New Headquarters—At a special meeting of the council of Lynbrook, N. Y., plans were made for a new fire department headquarters building.

Mobile, Ala., Increase Postponed—Action on the proposed increase in pay for Mobile, Ala., firemen has been delayed again.

Davenport, Ia., Apparatus to Carry Covers—Five salvage covers will be added to the equipment of the Davenport, Ia., fire department.

Atlanta, Ga., to Have More Firemen—Eight firemen have been added to the fire force of Atlanta, Ga. The crew will man the new truck at Station 19.

Chief Rehm of Mobile Completes 41st Year—Chief Gus Rehm of Mobile, Ala., rounded out his forty-first year as a member of the fire department.

Work Started on Sioux City, Ia., House—Construction has started on a fire house in Sioux City, Ia. The fire house will cost $32,000.

New Kensington, Pa., Raising Funds—New Kensington, Pa., is raising funds for the purchase of a fire department ambulance.

Meriden, Conn., to Buy Pumper—Meriden, Conn., will include in its next budget an amount for the purchase of a pumper.

Palmer, Mass., Wants Fire Apparatus—An effort will be made by Palmer, Mass., to secure a pumper for forest protection.

Arcata, Cal., to Buy Pumper—Arcata, Cal., is to issue $15,000 bonds for the purchase of a pumper and to remodel the city hall.

Chemical Car Delivered to Hudson, Ia.—A Boyer chemical car on which are mounted two 40-gallon tanks has been delivered to Hudson, Ia.

Long Beach, Cal., to Erect Fire House—Plans have been accepted for the construction of a fire station at Sixty-fifth street and Gundry avenue, Long Beach, Cal.

Richmond, Va., May Erect Fire House—Richmond, Va., may erect a fire house in the West End section. Residents of that section are against having a fire house.

New Pumper Delivered to Memphis, Tenn.—The first of four pieces of fire apparatus has been delivered to Memphis, Tenn.

Firemen Killed When Pumper Falls—A fireman of the Weston, W. Va., volunteer fire department was killed when the apparatus which was being taken to an out-of-town call, rolled over an embankment.

Pleasanton, Cal., to Have Fire House—The new fire house being erected in Pleasanton, Cal., is expected to be completed in October. It will accommodate three pieces of fire apparatus.

Camden County to Establish Fire School—At a meeting of the Camden County Firemen's Association held in Camden, N. J., it was decided to establish a firemen's training school. The site for the school will be selected at a later date.

Collingsdale, Pa., House Completed—The new fire house in Collingsdale, Pa., has been completed at a cost of over $30,000. The new house will be dedicated some time in October.

Ambulance Urged for Washingon, D. C.—Chief George S. Watson of Washington, D. C., has urged the purchase of an ambulance for the district fire department. Congress may be asked to appropriate $3,500 to buy the ambulance.

Middletown, O., to Erect Another Fire House—Middletown, Ohio, contemplates the construction of a third fire house. The city manager was instructed to obtain plans for the building.

Pacific Palisades, Cal., to Open Fire House—A new fire station has been opened in Pacific Palisades, Cal. Officials from Los Angeles and the West Los Angeles Chamber of Commerce attended.

Ventura, Cal., Asks for Pumper—Chief H. A. Johnson, in his annual report, has recommended the purchase of a pumper and the construction of two new fire houses—one in the east and one in the western part of the city.

Old Apparatus on Display in Portland, Me.—As part of the encampment of the Grand Army of the Republic, there will be a display of both old and modern fire apparatus. There will be exhibits of apparatus dating back to 1866. Chief Oliver Sanborn is in charge of the arrangements.

Mt. Clemens Hushes Fire Siren—When a commissioner discovered that the noise of a siren while attending the showing of a sound picture could be most annoying, he ordered that the siren be only used during the hours of 7 a.m. to 7 p.m. After that the firemen will be called by phone.

Portland, Ore., Prepares Budget—Portland, Ore., has requested $1,470,677 to operate the fire department next year. Two more battallion chiefs and twenty-four more hosemen, three more linemen and one box tester are requested. The department hopes to buy a city service truck for $10,000.

Fireboat Launched for Detroit—The fireboat being built by the Toledo Shipbuilding Company for Detroit has been launched. The boat has been named the John Kendall in honor of the third fire commissioner of Detroit. The craft is 135 feet long, twenty-nine feet beam and has a draft of 16.6 feet.

New Fire Alarm Urged for Marion, O.—Chief T. J. McFarland of Marion, Ohio, has stated that the city has outgrown her present fire alarm system and that $35,000 are needed to bring the fire alarm up-to-date. The present equipment was installed twenty-five years ago. He suggested that all circuits be placed underground.

More Men Urged for Attleboro, Mass.—The New England Fire Insurance Exchange has recommended that ten additional men and four additional full paid company officers be appointed to the Attleboro, Mass., fire department. The purchase of fire apparatus and minor equipment was also recommended. The report suggested that a telephone trunk line be reserved exclusively for fire alarms.

Woman Appointed Fire Marshal—Mrs. Adah Dodd Poince of Dayton, has been appointed assistant state fire marshal of Ohio. As part of her work, she will prepare educational data for the schools on the subject of fires and fire prevention. She served in a somewhat similar capacity from 1921 to 1923. Mrs. Poince is regarded as a most convincing lecturer.

Hose 6 of Auburn Back in Service—Hose Company No. 6, Auburn, N. Y., is again functioning as a unit. At the time of the prison uprising the company's apparatus was burned, and so the men were distributed to the other companies of the department. Hose 6 now has a Mack demonstrator pending the arrival of apparatus that has been ordered to replace the one destroyed.

Work Rushed on Springfield, Mass., Station—The new fire house being erected in West Springfield, Mass., is nearing completion. It is constructed of red brick with natural wood trim, and is designed along English lines. It will cost $22,000. The apparatus floor has space for four units. On the second floor are baths, kitchen, and sleeping quarters for the officers and men. The station will be manned by two shifts of four men each including a captain.

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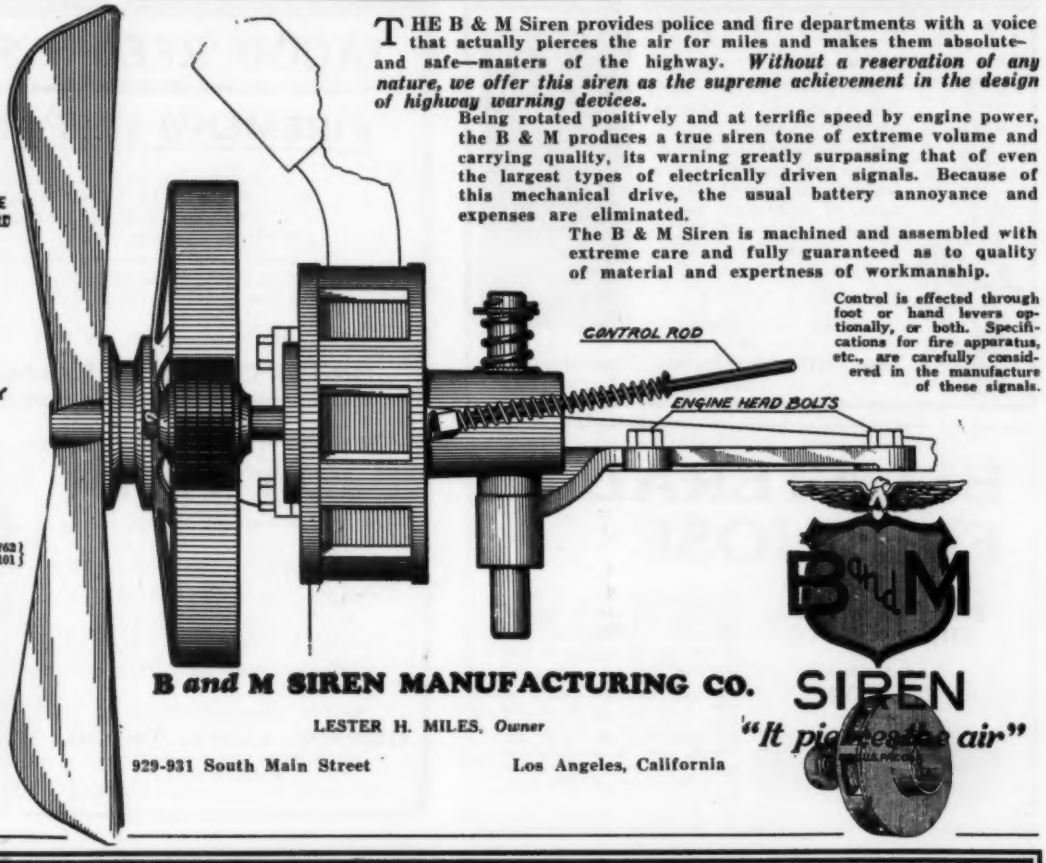

THE B & M Siren provides police and fire departments with a voice that actually pierces the air for miles and makes them absolute- and safe—masters of the highway. ***Without a reservation of any nature, we offer this siren as the supreme achievement in the design of highway warning devices.***

Being rotated positively and at terrific speed by engine power, the B & M produces a true siren tone of extreme volume and carrying quality, its warning greatly surpassing that of even the largest types of electrically driven signals. Because of this mechanical drive, the usual battery annoyance and expenses are eliminated.

The B & M Siren is machined and assembled with extreme care and fully guaranteed as to quality of material and expertness of workmanship.

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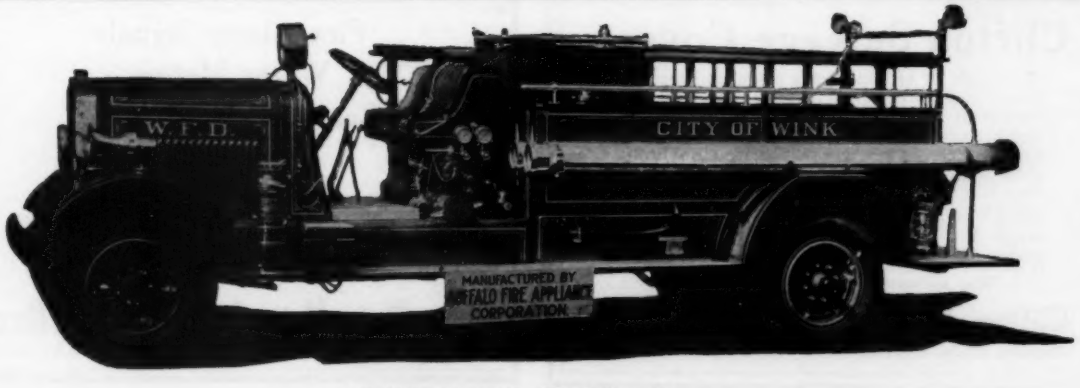

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Buffalo Pumpers are the most highly developed in design, construction and engineering standards and are intended for municipality, community and township fire protection.

Buffalo Pumpers are also noted for their efficiency and their great abundance of reserve power. They are pumpers with stamina and speed. All the above have to be credited for bringing great pumping merits for Buffalo Pumpers.

Buffalo Pumpers are given great and careful attention when under construction at our factory by engineers, both mechanical and designing, who have been in contact with the construction of pumpers for years.

Buffalo Pumpers range from 300 gallon capacity to 1000 gallon capacity.

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THE BI-LATERAL FIRE HOSE CO.

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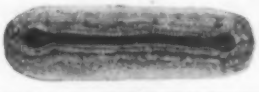

If you purchase BI-LATERAL FIRE HOSE it will increase the value of your hose-carrying apparatus more than the cost of the load of Bi-Lateral Fire Hose.

We can load from 25% to 33% more and when coupled with rocker lug couplings the Bi-Lateral hose makes an apparatus one to be proud of and as near perfect as possible to do quick and efficient service.

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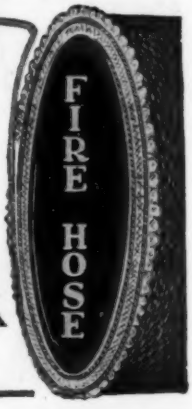

Clifton Salvage Covers

Are made of strong, heavy duck and lapped seams and are designed of such thickness and weight as to be light enough to be handled quickly and rigid enough for the most strenuous service. They are rubberized on both sides with a double coating of a high grade, long life, rubber compound.

CLIFTON SALVAGE COVERS are built to stand the heaviest abuse and are used by many of the large Protective Departments.

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PROPOSED IMPROVEMENTS

Great Falls, Cascade Co., Mont.—City Council planning to place $750,000 bond issue on ballot at city election next April, for fire protection.

East Palestine, Columbiana Co., Ohio.—At general election in November an issue of fire equipment bonds to the amount of $13,000 will be submitted to the voters.

Toledo, Lewis Co., Wash.—Town Council held special session to discuss the purchase of a pumper for the fire department. J. H. Douge, Mayor, John Bickford, Chief.

Lake George, Warren Co., N. Y.—At election held Sept. 4th city voted for purchase of new fire apparatus, equipment and housing.

Jackson, Amador Co., Calif.—Movement started for purchase of a chemical engine for the Mokelumne Hill section after recent fires, according to reports.

Seymour, New Haven Co., Conn.—Reports state town interested in purchase of new piece of fire apparatus.

Corvallis, Benton Co., Oregon.—The election to vote on a $15,000 bond issue for purchase of fire apparatus is to be held Oct. 18th.

Wabeno, Forest Co., Wis.—At special meeting held recently town considered the purchase of new piece of apparatus.

Milford, New Haven Co., Conn.—Fire budget for coming year includes $13,000 for new pumper to be placed in Myrtle Beach fire station; $800 for new emergency truck for fire alarm work.

Hermon, St. Lawrence Co., N. Y.—Reports state fire department to raise funds for purchase of additional fire apparatus.

Virginia Beach, Princess Anne Co., Va.—A volunteer fire department is to be organized here, according to reports.

WHERE THERE ARE TERMITES, THERE MAY BE AN EXPLOSION

Carbon Disulphide Used to Exterminate Ants in Buildings, Results in a Severe Hazard — History of Recent Disaster

HAVE you met the Termite Ants? The chances are that you haven't. This variety is a troublemaker of the first order and is quite common in the southwest. It is a white ant, blind, and delights to burrow its way through wooden foundations of buildings. To destroy these insects, carbon disulphide is used, and therein lies the danger.

Carbon disulphide, sometimes known as carbon bisulphide, is a foul smelling liquid, that evaporates quickly and is considered the most hazardous of the flammable liquids commercially used. The relative limits of flammability by volume of gasoline is 1.4 to 6 and of carbon disulphide, 1.0 to 50.

A commercial organization was called to exterminate termites in a home in New Orleans, La. Their method is to drill holes the size of a one quart bottle stopper in the concrete floor, starting in a corner and drilling approximately every six feet along the walls. Holes are made with a star drill and hammer. Where there is a dirt floor, holes are reamed with an iron rod. Into each hole is poured a gallon of carbon disulphide from a five-gallon container. The holes are then plugged or tamped. About forty-five gallons of this liquid were used, and the reserve supply was kept in a tank on the outside.

Before the work was started, the water heater was cut off, the gas burner extinguished in the kitchen, and every precaution taken to prevent an explosion. According to the operator, the fuses were removed from the electric refrigerator, the motor of which was in the cellar. He informed the lady of the house of the precautions taken, but he did not mention anything concerning the ice machine. While the exterminating preparations were being made in the cellar, the woman and her child attempted to remove a pan of ice cubes from the refrigerator. The ice box door was kept open for about ten or fifteen minutes, and then an explosion occurred that wrecked the home. Two side walls, a portion of the rear wall, and a portion of the brick wall that supported the porch were blown out.

Later investigation disclosed that the fuses were not removed from the electrically operated refrigerator as a precautionary measure. When the door of the refrigerator was kept open for ten minutes or more, the temperature inside dropped, and the motor in the cellar started automatically to cool the air in the ice box to a fixed point. The cellar was filled with fumes of the insecticide, and in this particular instance, the machine was located where the heaviest fumes would have existed.

Conclusions drawn by trained fire inspection men are that liquids of this kind are entirely too hazardous for use in dwellings and especially those in which people are living. It was a miracle that there was absence of loss of life. The state fire marshall has prohibited the use of carbon disulphide and has published this order in the newspapers.

The fire that followed the explosion was due, it is believed to gas that escaped near the water heater.

Massachusetts Firemen Meet

Chief William H. Hawkins, of the Haverhill fire department, presided at the opening session of the 50th annual convention of the Massachusetts State Firemen's Association.

Secretary Daniel J. Looney, of Boston, reported that the association now has a membership of 8,471 firemen. Edward J. Coveney, of Boston, commissioner of the $18,000 firemen's relief fund, reported that during the past year the association has paid out $3,749,50 in injury benefits and $8,801.00 in benefits to children of firemen killed in performance of duty.

Addresses of welcome were delivered by Mayor Michael J. O'Hara, of Worcester, by Chief Charles L. McCarthy, of the Worcester fire department, and Carl R. Brownell, president of the board of aldermen. Lieut. Fred J. Dobbratz, of Boston, made the response in behalf of the association.

Michael J. McGonagle reported for the legislative committee and said that during the past year twenty-seven bills relating to fire department matters had been introduced in the state legislature. He told of efforts being made to obtain protection for drivers of motor apparatus who are now liable for damage suits in case of accidents.

President Hawkins appointed Capt. Henry Hilton, of Gloucester, and Lieut. F. J. Dobbratz and M. J. McGonagle, of Boston, as a committee on credentials. Deputy Chief James S. Koen told of attending the convention of the International Association of Fire Chiefs in Philadelphia as a delegate from the association.

HARRY BELKNAP.

Cleveland Hospital Disaster

(*Continued from page* 825)

flame. The result would be a terrific explosion with very little fire damage.

Nitrogen tetroxide is three times heavier than the atmosphere, poisonous and very injurious to the lung tissues. When pure it is of a yellowish color. However the presence of carbon would darken it. The draft caused by the explosion opening up the building, together with the heat, would cause the gas to rise, and the ventilators would permit it to be drawn into the various rooms.

The compounds used in the manufacture of film stock are heavy carriers of carbon gas which perhaps accounts for the dark brown molasses-like coating on the clinic walls, which is similar to carbon deposits on the inside of engines.

CAPT. JOHN E. MURRAY,
Water Tower No. 2,
Chicago Fire Department.

CONVENTION DATES

Sept. 18-19—MISSOURI ASSOCIATION OF FIRE FIGHTERS (Consolidated with former Missouri State Association of Fire Chiefs). Annual Convention, Jefferson City, Mo. Secretary, M. J. Mulvoy, 3500 S. Grand Boulevard, St. Louis, Mo.

Sept. 19-22—LOUISIANA STATE FIREMEN'S ASSOCIATION 24th Annual Convention, Jennings, La. Secretary, Chief A. J. Bethancourt, Houma, La.

Sept. 20—NEW JERSEY STATE FIRE CHIEFS' ASSOCIATION. Annual Meeting, Committee Room 12, New Atlantic Auditorium, Atlantic City, N. J. Secretary, Fred A. Trowbridge, 17 South Street, Morristown, N. J.

Sept. 20-21—NEW JERSEY STATE FIREMEN'S ASSOCIATION. 52nd Annual Convention, Atlantic City, N. J. (Tentative date to be definitely set later by Executive Committee). Secretary, William Exall, Room 602, Chamber of Commerce Bldg., Newark, N. J.

Oct. 1-3—FIREMEN'S ASSOCIATION OF THE STATE OF PENNSYLVANIA. 50th Annual Convention, Hotel Roosevelt, Pittsburgh, Pa. Secretary, Charles E. Clark, P. O. Box 217, Wayne, Pa.

Oct. 15-17—RAILWAY FIRE PROTECTION ASSOCIATION. Annual Meeting, Toronto, Can., Secretary-Treasurer, R. R. Hackett, Baltimore & Ohio Railroad, Baltimore, Md.

Oct. 21—SOUTHEASTERN FIRE CHIEFS ASSOCIATION. 2nd Annual Convention, Tutweiler Hotel, Birmingham, Ala. Secretary, Chief H. E. Whitener, Hickory, N. C.

Oct. 22-25—INTERNATIONAL ASSOCIATION OF FIRE CHIEFS. 57th Annual Convention, Hotel Tutweiler, Birmingham, Ala. Exhibits City Auditorium. Recording Secretary, Chief James J. Mulcahey, Yonkers, N. Y.; Executive Secretary, Jay W. Stevens, 113 Merchants Exchange Bldg., San Francisco, Cal.; Chairman, Exhibit Committee, Chief Selden R. Allen, Brookline, Mass.

May 12, week of, 1930—NATIONAL FIRE PROTECTION ASSOCIATION. 34th Annual Meeting, Atlantic City, N. J. 1931 Convention probably to be held in Toronto, Can. Managing Director, Franklin H. Wentworth, 60 Batterymarch St., Boston, Mass.

May 14, 1930—DEL-MAR-VA. VOLUNTEER FIREMEN'S ASSOCIATION. 1st annual convention, Cambridge, Md. Secretary, J. Emory Parks, Cambridge, Md.

June, 1930—EASTERN ASSOCIATION OF FIRE CHIEFS. 3rd Annual Convention, Baltimore, Md. (Exact date to be decided later.) Secretary, Ex-Chief T. Howell Johnson, Room 602, Chamber of Commerce Bldg., Newark, N. J.

FALSE ALARMS

—Drawing by "Art" Espey

The Dog Watch

A PASSING CRAZE

In a far western community, a very wealthy resident who owned considerable property presented the fire department with a new station. It was most modern, and after it was completed, the department held open house. Two natives came in and gazed with admiration at the fine appointments. They looked at the bath room for some time and then one remarked:

"And you can't tell me that this taking a bath every week is any more than a foible of the idle rich."

If you want to know how it feels to be gassed, try smoking a five-cent cigar in a telephone booth.

THE TRUTH ABOUT NERO

The following is a boy's school composition on the burning of Rome:

It was some years before Christ (B. C.) when Rome was burnt to a cinder. That night Old King Nero and his pals was setting on the old palace roof, enjoying the cool and trying to think of some more meanness to do. King Nero was a a fat old tub, but his better half wasn't so hard on the eyes. She had "that schoolgirl complexion" and a "skin you love to touch," but she was as mean as they make them.

The Queen she says, "Gosh, this is an awful dull night: now that they ain't any more Chrischuns to burn or any more folks to throw to the lions." These was the lady's favorite indoor sports.

"Yeh," says Nero, "that's me, too."

Right here some gals come in and done a dance that pleased the gents, but didn't cut no ice with the Queen. "What is them clumsy cows doing here?" says she. "Take them away and cut their heads offen them."

Well, they done this and then Nero he says he would play his fiddle for them but the Queen she feels bad enough already. Then Nero, he says, "Let's set fire to this burg and watch the show from here."

"Now your talking, kiddo," says the Queen. "That's the stuff."

So they called the soldiers and the Queen she says, "Burn it up!" And they burnt it up like she said for them to do.

"Gee whiz," says the queen, "this is grand." And Nero played his fiddle after all, hoping his wife wouldn't notice it in the fuss that was going on.

And so Rome was burnt to a cinder and the people couldn't stop it, but they could of stopt it if they had had "Fire Prevention Week" learned in the schools.

It is not always true that young people are spendthrifts. A boy and a girl can start down a country road in a car about dusk and be gone until past midnight on a gallon of gas.

RESULTS COUNT

The village hose truck had been having its share of mechanical trouble because of its prolonged age. On a trial run, a member of the company noticed the absence of a characteristic knock in the engine, and remarked to the mechanic:

"Gee, the knock is gone. How did you fix it?"

The mechanic replied, "Oh, I just loosened up one of the mudguards."

What is sauce for the goose is not necessarily gooseberry sauce.

SHE KNEW HER HUSBAND

He was brought home in the chief's car, with the department doctor doing all possible to relieve him. The patient was put to bed and then rested easier. On the way out, the doctor gave instructions to the sick man's wife.

"And if he loses consciousness again, give him a teaspoonful of that brandy," said the doctor.

The good woman was horrified.

"While he's unconscious? Oh, doctor, he'd never forgive me."

The trouble with an attractive woman is that she attracts so many other men.

AN IDLE THOUGHT

A police line was established at the Brook Street fire, to keep back the large crowd that had gathered. A man, very much intoxicated, tried to force his way through the line. The good-natured officer held him back.

"Shay," remarked the intoxicated one, "I've a good notion to punch you again."

"Again?" questioned the policeman. "Why you haven't done it the first time."

"Well, I had the shame notion before."

AN EXAMPLE OF TACT

Swensen had had unusual success in house inspection during Fire Prevention Week. Never did he have to resort to his official authority in order to gain admittance, and his associates were surprised at such a record. One asked:

"To what do you owe your extraordinary success in house inspection work?"

"I give credit to the first five words I say when a woman opens the door—'Miss, is your mother in?'"

The puzzle is how did King Solo on get so many wives without a car

SUPPORTING THE LOAD

The list had been posted of all those who had passed the promotional examinations. There were both sorrow and rejoicing depending upon whether a candidate had or had not received a passing grade.

"Bear in mind that the big potatoes are always to be found at the top of the heap," said one who had made the list and was exceedingly proud of the fact.

"Yeh," grunted one of the failures, "if it wasn't for the rest of us there wouldn't be any heap."

There are two sides to everything, except a bathing suit.

TOO LATE TO CHANGE

Mike was in a bad way. The department surgeon had given up all hope, and at the request of friends, a priest was called.

"Mike," said the priest, "while you have the chance, you should renounce the devil."

"Well, Father, if I'm as bad off as that, it's no time to be making new inimies."

Out where the detours are a little longer—that's where the West begins.

THE SOLE DIFFERENCE

The talk of the group about the old pot-belly stove in the country store switched to fighting fires.

"Do you know the difference between the fire department in this town and the one in Chicago?" asked one.

There was no answer. He then proceeded to reply to his own question.

"Well in Chicago the crowd follows the fire engines to see where the fire is, but here the fire engine follows the crowd to see where the fire is."

The real movie hero is the man who can take his own seat and ignore the ushers.

FORM OF RULE

"Thank Heavens that the women have not crashed into fire fighting. Imagine a woman fire chief! It's enough having one at home. Does your wife boss you?"

"I wouldn't put it that way. I also have two daughters, you know. I work under a commission form of government."

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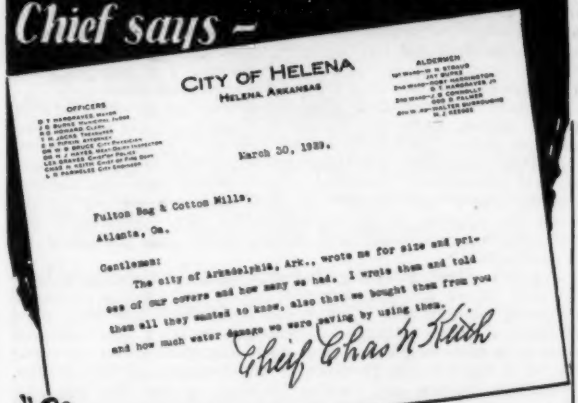

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March 30, 1929.

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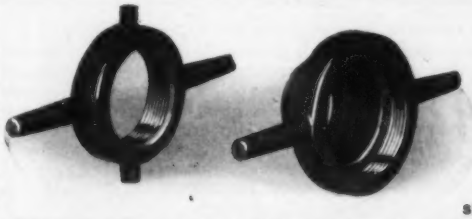
Braddock Ave & Thomas Blvd. Pittsburgh, Pa.



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The A.B.C. Fire Prevention Mfg. Company
390-392 Hudson Street, New York City

Extinguishing Burning Peat Land

After two years of hard work, one of the strangest fires in this country has been extinguished in Los Angeles. Instead of the usual building fire, this conflagration confined itself to a large area of burning peat land. However the actual work of extinguishing the burning earth took only a few days once the fire fighting crew was placed in action. For two years the underground fire had been smoldering day after day.

Mothers cautioned their children to stay out of the "burning earth" region, while the curious population of the city visited the area daily. Fathers demanded that the city take action and extinguish the fire. The city demanded that property owners be held responsible. Property owners whose land was burning claimed that it was "an act of God" and that the city should stand the expense of extinguishing the fire. Meanwhile the peat bed fire smoldered and spread to an area ten times its original size.

For two years this litigation continued with the peat beds growing larger and the demands of the surrounding residents becoming more acute. Action was demanded. The beds were declared a public nuisance. The mayor declared that litigation would not put out the fire, and in the meantime it was continuing as a menace and nuisance to the residents of the district.

Without waiting for further hearings in the case the city of Los Angeles appropriated $14,000 for extinguishing the fire in the peat beds. A huge drain was cut from a nearby storm drain and directed into the center of the burning beds. Numerous pipe lines were laid on the surface of the ground with outlet valves at varying intervals.

All was in readiness. City engineers now waited for "an act of God" which was to bring a three-day deluge of rain. The

Flooding the Fiery Peat Lands at Los Angeles, Cal.

water rushed through the huge ditches and flooded the fired peat beds. The crew of high-top booted fire fighters attached hose to the water mains and poured concentrated streams into higher burning fissures. Mud geysers errupted and forced steam, water, and debris ten to fifteen feet into the air. The entire earth area was seething under the efficient flood waters. A miniature volcanic eruption was being staged. Steam vents became furiously active and within a few moments died completely. Gradually the earth quieted and the two year old fire was finally out. This earth fire has undoubtedly established a new record in fire fighting practice. A fire fighting crew was actually called upon to put out the earth fires.

WILLARD D. MORGAN

Preventing Sewer Explosions

Engineers in the employ of Washington, D. C., have made a survey to obtain data for a constructive plan that would protect sewers from the possibilities of explosions as the result of garages emptying crank case oils in such lines. The conclusion derived from the study have been summarized as follows:

"With all the information as cited herein at hand, including the reports from the U. S. Bureau of Standards showing the value of the product, the plumbing regulations of the District of Columbia were recommended to be revised in this respect and amended to require the maintenance by garages, filling and service stations, automobile repair shops, and so forth, of approved containers or underground tanks, separate and apart from garage traps, for the retention of all waste crank-case oils, the contents of the same to be removed by the occupant or operator at regular intervals or upon notice from the district authorities. Regulations for the safe transportation of this commodity are also included in the proposed amendments.

The adoption of these regulations will necessarily require provision to be made for the safe and systematic disposition of the waste oil so retained. The dumping grounds in the district and vicinity have prohibited the receiving of such refuse (waste oils or contents of garage traps), and in order that the public may be fully protected in the matter of disposition of these accumulations of waste oil retained under such regulations, particularly as to the more or less isolated sections being properly provided with disposal service, a proposal is being submitted for approval whereby a contract may be made under competitive bidding for the collection, transportation and disposition of such waste oil as may become available. Such services as may be contracted for will be guaranteed by proper bond, regulated by direct supervision of the district government as to scope of service, maintenance of facilities for collection, transportation and disposition and all other conditions which will make for a thorough and systematic service.

Methods of disposing of crank-case oil at garages, other than by turning it into the sewer system, as reported by cities in the United States are: As an aid to burning city garbage and refuse; as fuel oil; oiling swamp lands for mosquito control; oiling dirt roads; oiling concrete forms; manufacture of paint; re-refining oil used in automobile engines; pouring on dumps (kind of dump not stated nor whether this may not in some cases be city refuse dump so that the oil here is used to help burn the waste materials). Some of the remarks received from various cities in the United States, Canada and Europe bearing upon the problem under consideration follow:

Baltimore, Md.—A contract was entered into and the contractor is to be paid a stipulated amount for collecting all crank-case oil.

Boston, Mass.—We have had several narrow escapes from serious accidents. Regular collection of crank-case oil and waste gasoline by the city under regulations, either by day labor or by contract, seems to be the best solution offered under present conditions.

Milwaukee, Wis.—The city collects oil in a tank truck and uses it in the burning of its garbage. The city has some general ordinances which prevent (prohibit?) the owners of property from discharging oil wastes into the sewer system, but those ordinances are unenforcable.

Seattle, Wash.—Gasoline vapor has been found at more than 100 places in the city's sewers, in many places in dangerous quantities.

Syracuse, N. Y.—We are bothered with considerable accumulations of grease and oil at our sewage-works.

Toronto, Canada—The five largest oil companies operating service stations throughout the city collect this waste crank-case oil periodically and return it to refinery. We are informed that credit is not given for the oil collected and that the value practically equals the cost of collection.

Winnipeg, Canada—The waste oil drained from automobiles and trucks at the different garages and filling stations is stored in small iron drums and taken away by the oil companies.

Breslau, Germany—Garages are required to maintain "separators." However, after a certain saturation point of oil and benzine, the accumulated material in the apparatus is poorly dissolved and let into the sewer from water power behind. For this reason another device and a device to deposit the material in separate receptacles.

Copenhagen, Denmark—Before waste water from garages and filling stations is allowed to enter sewers it flows through gasoline separators in which the gasoline is held back and can be collected. No provision is made for the disposition of waste oils.

Paris, France—The mixture of oil and gas coming from garages and filling stations is treated by distillation and the oil that is gathered is again used for oiling purposes.

As to requiring intercepting traps in garages, the report points out that any "merely prohibitive regulation" designed to exclude oil from public sewers is "ineffective," because "its enforcement depends in too great a degree upon the spirit and respect of the public toward the intent of the regulation." The report also points out that oil gathered in oil traps "will naturally flow into the sewers."

Marshalltown, Ia., Rejects Bids—All bids for a new service truck to be delivered to Marshalltown, Ia., have been rejected.

Survey Made of Creston, Ia.—Inspectors of the Iowa State Fire Prevention organization inspected Creston, Ia., for possible fire hazards.

McKees Rock, Pa., to Erect New House—A new fire house to care for the apparatus and the social needs of the firemen, will be erected in McKees Rock, Pa.

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The **Corey** Fire Hydrants as built by us are the only **Genuine Corey Fire Hydrants** manufactured, and they conform to the standard specifications of the American Water Works Association.

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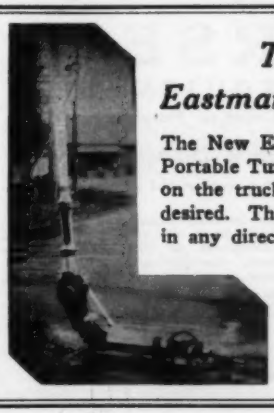

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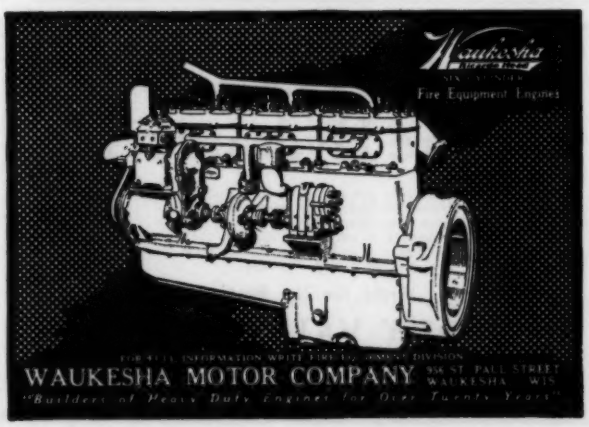
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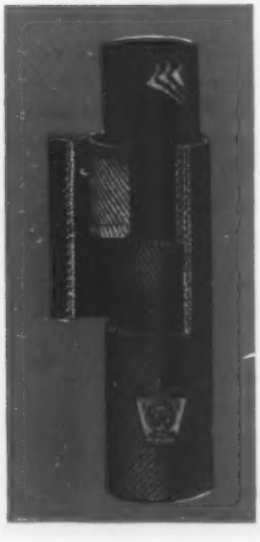

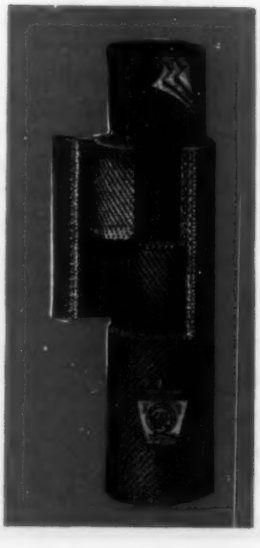

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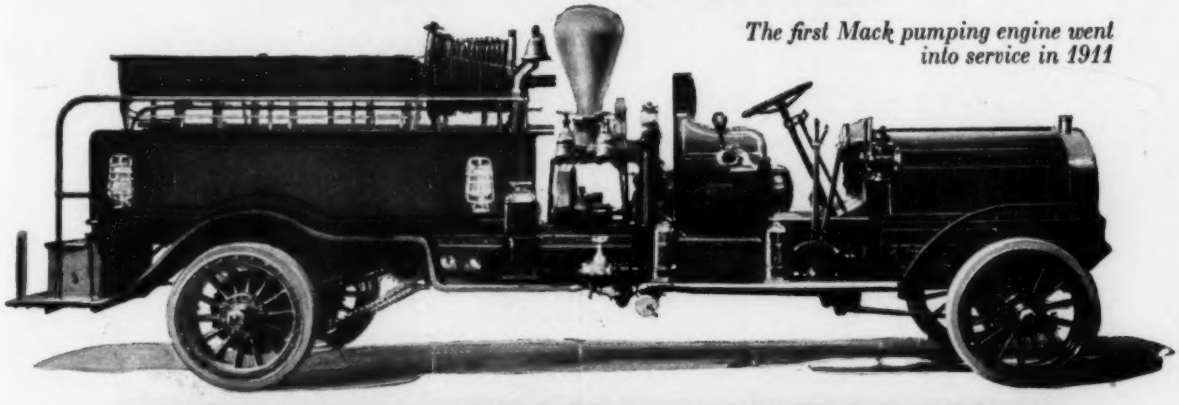

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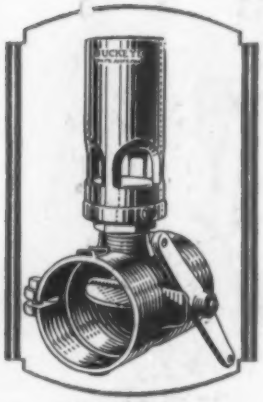

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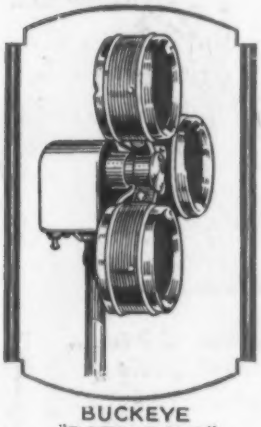

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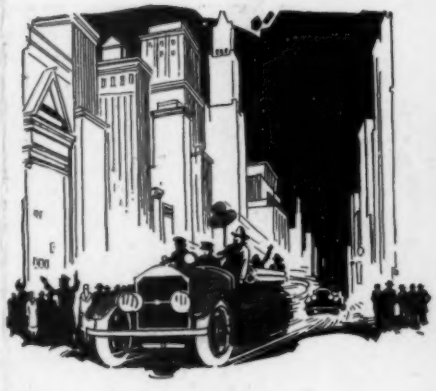

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